RE: ***NEO RESINS 023-15292-00023***
TO: Interested Parties / Applicant January 30, 2003
FROM: *Paul Dubenetzky*
Chief, Permits Branch
Office of Air Quality

Notice of Decision: Approval - Effective Immediately

Please be advised that on behalf of the Commissioner of the Department of Environmental Management, I have issued a decision regarding the enclosed matter. Pursuant to IC 13-15-5-3, this permit is effective immediately, unless a petition for stay of effectiveness is filed and granted according to IC 13-15-6-3, and may be revoked or modified in accordance with the provisions of IC 13-15-7-1.

If you wish to challenge this decision, IC 4-21.5-3 and IC 13-15-6-1 require that you file a petition for administrative review. This petition may include a request for stay of effectiveness and must be submitted to the Office of Environmental Adjudication, ISTA Building, 150 W. Market Street, Suite 618, Indianapolis, IN 46204, **within (18) eighteen days of the mailing of this notice**. The filing of a petition for administrative review is complete on the earliest of the following dates that apply to the filing:

(1) the date the document is delivered to the Office of Environmental Adjudication (OEA);
(2) the date of the postmark on the envelope containing the document, if the document is mailed to OEA by U.S. mail; or
(3) the date on which the document is deposited with a private carrier, as shown by receipt issued by the carrier, if the document is sent to the OEA by private carrier.

The petition must include facts demonstrating that you are either the applicant, a person aggrieved or adversely affected by the decision or otherwise entitled to review by law. Please identify the permit, decision, or other order for which you seek review by permit number, name of the applicant, location, date of this notice and all of the following:

(1) the name and address of the person making the request;
(2) the interest of the person making the request;
(3) identification of any persons represented by the person making the request;
(4) the reasons, with particularity, for the request;
(5) the issues, with particularity, proposed for consideration at any hearing; and
(6) identification of the terms and conditions which, in the judgment of the person making the request, would be appropriate in the case in question to satisfy the requirements of the law governing documents of the type issued by the Commissioner.

If you have technical questions regarding the enclosed documents, please contact the Office of Air Quality, Permits Branch at (317) 233-0178. Callers from within Indiana may call toll-free at 1-800-451-6027, ext. 3-0178.

Enclosure

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We make Indiana a cleaner, healthier place to live.

Governor

Lori F. Kaplan
Commissioner

100 North Senate Avenue
P. O. Box 6015
Indianapolis, Indiana 46206-6015

(317) 232-8603
(800) 451-6027
www.state.in.us/idem

MINOR SOURCE OPERATING PERMIT (MSOP) OFFICE OF AIR QUALITY

Neo Resins
3110 West State Road 28
Frankfort, Indiana 46041

(herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the source described in Section A (Source Summary) of this permit.

This permit is issued to the above mentioned company under the provisions of 326 IAC 2-1.1, 326 IAC 2-6.1 and 40 CFR 52.780, with conditions listed on the attached pages.

Operation Permit No.: MSOP 023-15292-00023	
Issued by: original signed by Paul Dubenetzky, Branch Chief Office of Air Quality	Issuance Date: January 30, 2003 Expiration Date: January 30, 2008

TABLE OF CONTENTS

TABLE OF CONTENTS (Continued)

SECTION A SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ). The information describing the source contained in conditions A.1 through A.3 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

A.1 General Information [326 IAC 2-5.1-3(c)][326 IAC 2-6.1-4(a)]

The Permittee owns and operates a acrylic latex emulsions manufacturing plant.

Authorized individual:	Richard W. Alsterberg, U.S. Manufacturing Manager
Source Address:	3110 West State Road 28, Frankfort, Indiana 46041
Mailing Address:	3110 West State Road 28, Frankfort, Indiana 46041
General Source Phone:	(574) 825-5867
SIC Code:	2821
Source Location Status:	Clinton
County Status:	Attainment for all criteria pollutants
Source Status:	Federally Enforceable State Operating Permit (FESOP) Minor Source, under PSD; Minor Source, Section 112 of the Clean Air Act 1 of 28 Source Categories

A.2 Emission Units and Pollution Control Equipment Summary

This stationary source consists of the following emission units and pollution control devices:

(a) One (1) batch acrylic latex emulsion manufacturing facility consisting of three (3) feed tanks, two (2) closed polymerization vessels, four (4) blending tanks, one (1) coalescing make-up tank, one (1) zinc make-up tank equipped with a baghouse, and twenty-two (22) product storage tanks. Raw material and products are transferred using a closed system. VOC and HAP emissions are controlled by one (1) 95% efficient, catalytic oxidizer, which exhausts at stack S-1. The maximum throughput is 78.84 million pounds of product per year. The facility was initially constructed in 1986, with a polymerization vessel, feed tank, and blending tank added in 1989 and additional blending tank (identified as BTk-14) added in 2001.

(b) Two (2) natural gas-fired boilers, constructed in June 1986, each having a maximum heat input capacity of five (5) million British thermal units per hour. Both boilers use #2 fuel oil as an alternative fuel. The boilers are identified as SEU-2 and SEU-3. Boiler SEU-2 exhausts to stack S-14 and boiler SEU-3 exhausts to stack S-15. The boilers are an insignificant source when burning natural gas.

(c) The source has the following fourteen (14) above-ground, fixed-roof dome storage tanks:

(1) Storage tank TK-101, constructed in November 1986, having a capacity of 5,330 gallons and used to store ethyl acrylate;

(2) Storage tank TK-102, constructed in November 1986, having a capacity of 5,630 gallons and used to store acrylonitrile;

(3) Storage tank TK-103, constructed in November 1986, having a capacity of 5,330 gallons and used to store isobutylacrylate;

(4) Storage tank TK-105, constructed in November 1986, having a capacity of 8,515 gallons and used to store n-butyl acrylate;

(5) Storage tank TK-106, constructed in November 1986, having a capacity of 8,210 gallons and used to store n-butyl methacrylate;

(6) Storage tank TK-107, constructed in November 1986, having a capacity of 8,210 gallons and used to store 2-ethylhexyl acrylate;

(7) Storage tank TK-108, constructed in November 1986, having a capacity of 8,210 gallons and used to store methyl methacrylate;

(8) Storage tank TK-109, constructed in November 1986, having a capacity of 8,520 gallons and used to store styrene;

(9) Storage tank TK-110, constructed in November 1986, having a capacity of 8,210 gallons and used to store styrene;

(10) Storage tank TK-111, constructed in November 1986, having a capacity of 8,520 gallons and used to store glycol ethers;

(11) Storage tank TK-112, constructed in November 1986, having a capacity of 8,210 gallons and used to store a hydrocarbon blend;

(12) Storage tank TK-125, constructed in April 1987, having a capacity of 6,310 gallons and used to store acrylic acid;

(13) Storage tank TK-126, constructed in April 1987, having a capacity of 4,295 gallons and used to store methacrylic acid;

(14) Storage tank TK-349, constructed in April 1987, having a capacity of 8,032 gallons and used to store fuel oil #2.

Tank breathing emissions of VOCs and HAPs from storage tanks TK-101, TK-102, TK-103, TK-105, TK-106, TK-107, TK-108, TK-109, TK-110, TK-111, and TK-112 are controlled by the operation of conservation vents on each storage tank and using one (1) catalytic oxidizer, which has a control efficiency of 95%. Emissions from the catalytic oxidizer are exhausted through stack S-1. VOC and HAP emissions during filling operations for tanks TK-101, TK-102, TK-103, TK-105, TK-106, TK-107, TK-108, TK-109, TK-110, TK-111, TK-112, TK-125, and TK-126 are controlled using one (1) vapor balance system, which has a control efficiency of 90 percent.

(d) Cleaners and solvents characterized as follows:

(1) Having a vapor pressure equal to or less than 2 Kpa; 15 mmHg; or 0.3 psi measured at 38 ^{o}C (100 ^{o}F); or

(2) Having a vapor pressure equal to or less than 0.7 Kpa; 5 mmHg; or 0.1 psi measured at 20 ^{o}C (68 ^{o}F); the use of which for all cleaners and solvents combined does not exceed 145 gallons per 12 months.

(e) The following equipment related to manufacturing activities not resulting in the emission of HAPs: brazing equipment, cutting torches; soldering equipment, welding equipment.

(f) Activities associated with the treatment of wastewater streams with an oil and grease content of less than or equal to 10 % by volume.

(g) Purging of gas lines and vessels that is related to routine maintenance and repair of buildings, structures, or vehicles at the source where air emissions from those activities would not be associated with any production process.

(h) Blowdown for any of the following: sight glass; boiler; compressors; pumps; and cooling tower.

(i) Diesel generators not exceeding 1600 horsepower.

(j) Stationary fire pumps.

(k) A laboratory as defined in 326 IAC 2-7-1(20)(c).

(l) Equipment used to collect any material that might be released during a malfunction, process upset, or spill cleanup, including catch tanks, temporary liquid separators, tanks, and fluid handling equipment.

SECTION B GENERAL CONDITIONS

B.1 Permit No Defense [IC 13]

This permit does not relieve the Permittee of the responsibility to comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder, as well as other applicable local, state, and federal requirements.

B.2 Definitions

Terms in this permit shall have the definition assigned to such terms in the referenced regulation. In the absence of definitions in the referenced regulation, the applicable definitions found in the statutes or regulation IC 13-11, 326 IAC 1-2, and 326 IAC 2-1.1-1 shall prevail.

B.3 Effective Date of the Permit [IC13-15-5-3]

Pursuant to IC 13-15-5-3, this permit becomes effective upon its issuance.

B.4 Modification to Permit [326 IAC 2]

Notwithstanding the Section B condition entitled "Minor Source Operating Permit", all requirements and conditions of this permit shall remain in effect unless modified in a manner consistent with procedures established for modifications of permits pursuant to 326 IAC 2 (Permit Review Rules).

B.5 Minor Source Operating Permit [326 IAC 2-6.1]

(a) This operation permit will be subject to annual operating permit fees pursuant to 326 IAC 2-1.1-7(Fees).

(b) Pursuant to 326 IAC 2-6.1-7, the Permittee shall apply for an operation permit renewal at least ninety (90) days prior to the expiration date established in the validation letter. If IDEM, OAQ, upon receiving a timely and complete permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect until the renewal permit has been issued or denied. The operation permit issued shall contain as a minimum the conditions in Section C and Section D of this permit.

B.6 Permit Term and Renewal [326 IAC 2-6.1-7(a)] [326 IAC 2-1.1-9.5]

This permit is issued for a fixed term of five (5) years from the issuance date of this permit, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, of this permit do not affect the expiration date.

The Permittee shall apply for an operation permit renewal at least ninety (90) days prior to the expiration date. If a timely and sufficient permit application for a renewal has been made, this permit shall not expire and all terms and conditions shall continue in effect until the renewal permit has been issued or denied.

B.7 Annual Notification [326 IAC 2-6.1-5(a)(5)]

(a) Annual notification shall be submitted to the Office of Air Quality stating whether or not the source is in operation and in compliance with the terms and conditions contained in this permit.

(b) Noncompliance with any condition must be specifically identified. If there are any permit conditions or requirements for which the source is not in compliance at any time during the year, the Permittee must provide a narrative description of how the source did or will achieve compliance and the date compliance was, or will be, achieved. The notification must be signed by an authorized individual.

(c) The annual notice shall cover the time period from January 1 to December 31 of the previous year, and shall be submitted in the format attached no later than March 1 of each year to:

Compliance Branch, Office of Air Quality
Indiana Department of Environmental Management
100 North Senate Avenue, P.O. Box 6015
Indianapolis, IN 46206-6015

(d) The notification shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.

B.8 Preventive Maintenance Plan [326 IAC 1-6-3]

(a) If required by specific condition(s) in Section D of this permit, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMPs) within sixty (60) days after issuance of this permit, including the following information on each emissions unit:

(1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;

(2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and

(3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

If, due to circumstances beyond the Permittee's control, the PMPs cannot be prepared and maintained within the above time frame, the Permittee may extend the date an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

The PMP extension notification does not require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(b) The Permittee shall implement the PMPs as necessary to ensure that failure to implement the a PMP does not cause or contribute to a violation of any limitation on emissions or potential to emit.

(c) A copy of the PMPs shall be submitted to IDEM, OAQ, upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ, may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or contributes to any violation. The PMP does not require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(d) Records of preventive maintenance shall be retained for a period of at least five (5) years. These records shall be kept at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.

B.9 Permit Revision [326 IAC 2-5.1-3(e)(3)] [326 IAC 2-6.1-6]

(a) Permit revisions are governed by the requirements of 326 IAC 2-6.1-6.

(b) Any application requesting an amendment or modification of this permit shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

Any such application shall be certified by an "authorized individual" as defined by 326 IAC 2-1.1-1.

(c) The Permittee shall notify the OAQ within thirty (30) calendar days of implementing a notice-only change. [326 IAC 2-6.1-6(d)]

B.10 Inspection and Entry [326 IAC 2-5.1(e)(4)(B)] [326 IAC 2-6.1-5(a)(4)]

Upon presentation of proper identification cards, credentials, and other documents as may be required by law, and subject to the Permittee's right under all applicable laws and regulations to assert that the information collected by the agency is confidential and entitled to be treated as such, the Permittee shall allow IDEM, OAQ, U.S. EPA, or an authorized representative to perform the following:

(a) Enter upon the Permittee's premises where a permitted source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;

(b) Have access to and copy, at reasonable times, any records that must be kept under this title or the conditions of this permit or any operating permit revisions;

(c) Inspect, at reasonable times, any processes, emissions units (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit or any operating permit revisions;

(d) Sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and

(e) Utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements.

B.11 Transfer of Ownership or Operation [326 IAC 2-6.1-6(d)(3)]

Pursuant to [326 IAC 2-6.1-6(d)(3)]:

(a) In the event that ownership of this source is changed, the Permittee shall notify IDEM, OAQ, Permits Branch, within thirty (30) days of the change.

(b) The written notification shall be sufficient to transfer the permit to the new owner by a notice-only change pursuant to 326 IAC 2-6.1-6(d)(3).

(c) IDEM, OAQ, shall issue a revised permit.

The notification which shall be submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1.

B.12 Annual Fee Payment [326 IAC 2-1.1-7]

(a) The Permittee shall pay annual fees to IDEM, OAQ within thirty (30) calendar days of receipt of a billing.

(b) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-4230 (ask for OAQ, I/M & Billing Section), to determine the appropriate permit fee.

SECTION C SOURCE OPERATION CONDITIONS

Entire Source

C.1 Particulate Emission Limitations For Processes with Process Weight Rates Less Than One Hundred (100) pounds per hour [40 CFR 52 Subpart P][326 IAC 6-3-2]

(a) Pursuant to 40 CFR 52 Subpart P, the allowable particulate matter emissions rate from any process not already regulated by 326 IAC 6-1 or any New Source Performance Standard, and which has a maximum process weight rate less than 100 pounds per hour shall not exceed 0.551 pounds per hour.

(b) Pursuant to 326 IAC 6-3-2(e)(2), the allowable particulate emissions rate from any process not exempt under 326 IAC 6-3-1(b) or (c) which has a maximum process weight rate less than 100 pounds per hour and the methods in 326 IAC 6-3-2(b) through (d) do not apply shall not exceed 0.551 pounds per hour.

C.2 Permit Revocation [326 IAC 2-1.1-9]

Pursuant to 326 IAC 2-1.1-9 (Revocation of Permits), this permit to operate may be revoked for any of the following causes:

(a) Violation of any conditions of this permit.

(b) Failure to disclose all the relevant facts, or misrepresentation in obtaining this permit.

(c) Changes in regulatory requirements that mandate either a temporary or permanent reduction of discharge of contaminants. However, the amendment of appropriate sections of this permit shall not require revocation of this permit.

(d) Noncompliance with orders issued pursuant to 326 IAC 1-5 (Episode Alert Levels) to reduce emissions during an air pollution episode.

(e) For any cause which establishes in the judgment of IDEM, the fact that continuance of this permit is not consistent with purposes of this article.

C.3 Opacity [326 IAC 5-1]

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

(a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

(b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

C.4 Fugitive Dust Emissions [326 IAC 6-4]

The Permittee shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4 (Fugitive Dust Emissions).

C.5 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]

(a) Notification requirements apply to each owner or operator. If the combined amount of regulated asbestos containing material (RACM) to be stripped, removed or disturbed is at

least 260 linear feet on pipes or 160 square feet on other facility components, or at least thirty-five (35) cubic feet on all facility components, then the notification requirements of 326 IAC 14-10-3 are mandatory. All demolition projects require notification whether or not asbestos is present.

(b) The Permittee shall ensure that a written notification is sent on a form provided by the Commissioner at least ten (10) working days before asbestos stripping or removal work or before demolition begins, per 326 IAC 14-10-3, and shall update such notice as necessary, including, but not limited to the following:

(1) When the amount of affected asbestos containing material increases or decreases by at least twenty percent (20%); or

(2) If there is a change in the following:

(A) Asbestos removal or demolition start date;

(B) Removal or demolition contractor; or

(C) Waste disposal site.

(c) The Permittee shall ensure that the notice is postmarked or delivered according to the guidelines set forth in 326 IAC 14-10-3(2).

(d) The notice to be submitted shall include the information enumerated in 326 IAC 14-10-3(3).

All required notifications shall be submitted to:

Indiana Department of Environmental Management
Asbestos Section, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

The notice shall include a signed certification from the owner or operator that the information provided in this notification is correct and that only Indiana licensed workers and project supervisors will be used to implement the asbestos removal project. The notifications do not require a certification by an “authorized individual” as defined by 326 IAC 2-1.1-1.

(e) Procedures for Asbestos Emission Control
The Permittee shall comply with the applicable emission control procedures in 326 IAC 14-10-4 and 40 CFR 61.145(c). Per 326 IAC 14-10-1, emission control requirements are applicable for any removal or disturbance of RACM greater than three (3) linear feet on pipes or three (3) square feet on any other facility components or a total of at least 0.75 cubic feet on all facility components.

(f) Indiana Accredited Asbestos Inspector
The Permittee shall comply with 326 IAC 14-10-1(a) that requires the owner or operator, prior to a renovation/demolition, to use an Indiana Accredited Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos. The requirement that the inspector be accredited, pursuant to the provisions of 40 CFR 61, Subpart M, is federally enforceable.

Testing Requirements

C.6 Performance Testing [326 IAC 3-6]

(a) Compliance testing on new emission units shall be conducted within 60 days after achieving maximum production rate, but no later than 180 days after initial start-up, if specified in Section D of this approval. All testing shall be performed according to the provisions of 326 IAC 3-6 (Source Sampling Procedures), except as provided elsewhere in this permit, utilizing any applicable procedures and analysis methods specified in 40 CFR 51, 40 CFR 60, 40 CFR 61, 40 CFR 63, 40 CFR 75, or other procedures approved by IDEM, OAQ.

A test protocol, except as provided elsewhere in this permit, shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

no later than thirty-five (35) days prior to the intended test date.

(b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14 days) prior to the actual test date.

(c) Pursuant to 326 IAC 3-6-4(b), all test reports must be received by IDEM, OAQ not later than forty-five (45) days after the completion of the testing. An extension may be granted by the IDEM, OAQ, if the source submits to IDEM, OAQ, a reasonable written explanation not later than five (5) days prior to the end of the initial forty-five (45) day period.

Compliance Requirements [326 IAC 2-1.1-11]

C.7 Compliance Requirements [326 IAC 2-1.1-11]

The commissioner may require stack testing, monitoring, or reporting at any time to assure compliance with all applicable requirements by issuing an order under 326 IAC 2-1.1-11. Any monitoring or testing shall be performed in accordance with 326 IAC 3 or other methods approved by the commissioner or the U.S. EPA.

Compliance Monitoring Requirements

C.8 Compliance Monitoring [326 IAC 2-1.1-11]

Compliance with applicable requirements shall be documented as required by this permit. The Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment. All monitoring and record keeping requirements not already legally required shall be implemented when operation begins.

C.9 Monitoring Methods [326 IAC 3][40 CFR 60][40 CFR 63]

Any monitoring or testing required by Section D of this permit shall be performed according to the provisions of 326 IAC 3, 40 CFR 60, Appendix A, 40 CFR 60, Appendix B, 40 CFR 63, or other approved methods as specified in this permit.

C.10 Compliance Response Plan - Preparation and Implementation

(a) The Permittee is required to prepare a Compliance Response Plan (CRP) for each compliance monitoring condition of this permit. A CRP shall be submitted to IDEM, OAQ upon request. The CPR shall be prepared within ninety (90) days after issuance of this permit by the Permittee, supplemented from time to time by the Permittee, maintain on site, and comprised of:

(1) Reasonable response steps that may be implemented in the event that a response step is needed pursuant to the requirements of Section D of this permit; and an expected timeframe for taking reasonable response steps.

(2) If, at anytime, the Permittee takes reasonable response steps that are not set forth in the Permittee's current Compliance Response Plan and the Permittee documents such response in accordance with subsection (e) below, the Permittee shall amend its Compliance Response Plan to include such response steps taken.

(b) For each compliance monitoring condition of this permit, appropriate response steps shall be taken when indicated by the provisions of that compliance monitoring condition as follows:

(1) Reasonable response steps shall be taken as set forth in the Permittee's current Compliance Response Plan; or

(2) If none of the reasonable response steps listed in the Compliance Response Plan is applicable or responsive to the excursion, the Permittee shall devise and implement additional response steps as expeditiously as practical. Taking such additional response steps shall not be considered a deviation from this permit so long as the Permittee documents such response steps in accordance with this condition.

(3) If the Permittee determines that additional response steps would necessitate that the emissions unit or control device be shut down, the IDEM, OAQ shall be promptly notified of the expected date of the shut down, the status of the applicable compliance monitoring parameter with respect to normal, and the results of the actions taken up to the time of notification.

(4) Failure to take reasonable response steps shall constitute a violation of the permit.

(c) The Permittee is not required to take any further response steps for any of the following reasons:

(1) A false reading occurs due to the malfunction of the monitoring equipment and prompt action was taken to correct the monitoring equipment.

(2) The Permittee has determined that the compliance monitoring parameters established in the permit conditions are technically inappropriate, has previously submitted a request for an administrative amendment to the permit, and such request has not been denied.

(3) An automatic measurement was taken when the process was not operating.

(4) The process has already returned to operating within “normal” parameters and no response steps are required.

(d) The Permittee shall record all instances when response steps are taken.

(e) Except as otherwise provided by a rule or provided specifically in Section D, all monitoring as required in Section D shall be performed when the emission unit is operating, except for time necessary to perform quality assurance and maintenance activities.

Record Keeping and Reporting Requirements

C.11 Malfunctions Report [326 IAC 1-6-2]

Pursuant to 326 IAC 1-6-2 (Records; Notice of Malfunction):

(a) A record of all malfunctions, including startups or shutdowns of any facility or emission control equipment, which result in violations of applicable air pollution control regulations or applicable emission limitations shall be kept and retained for a period of three (3) years and shall be made available to the Indiana Department of Environmental Management (IDEM), Office of Air Quality(OAQ) or appointed representative upon request.

(b) When a malfunction of any facility or emission control equipment occurs which lasts more than one (1) hour, said condition shall be reported to OAQ, using the Malfunction Report Forms (2 pages). Notification shall be made by telephone or facsimile, as soon as practicable, but in no event later than four (4) daytime business hours after the beginning of said occurrence.

(c) Failure to report a malfunction of any emission control equipment shall constitute a violation of 326 IAC 1-6, and any other applicable rules. Information of the scope and expected duration of the malfunction shall be provided, including the items specified in 326 IAC 1-6-2(a)(1) through (6).

(d) Malfunction is defined as any sudden, unavoidable failure of any air pollution control equipment, process, or combustion or process equipment to operate in a normal and usual manner. [326 IAC 1-2-39]

C.12 General Record Keeping Requirements [326 IAC 2-6.1-5]

(a) Records of all required reports and support information shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be kept at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.

(b) Unless otherwise specified in this permit, all record keeping requirements not already legally required shall be implemented when operation begins.

C.13 General Reporting Requirements [326 IAC 2-1.1-11] [326 IAC 2-6.1-2] [IC 13-14-1-13]

(a) Reports required by conditions in Section D of this permit shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

(b) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.

(c) Unless otherwise specified in this permit, any reports required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. The reports do not require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(d) The first report shall cover the period commencing on the date of issuance of this permit and ending on the last day of the reporting period. Reporting periods are based on calendar years.

SECTION D.1 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-6.1]:

(a) One (1) batch acrylic latex emulsion manufacturing facility consisting of three (3) feed tanks, two (2) closed polymerization vessels, four (4) blending tanks, one (1) coalescing make-up tank, one (1) zinc make-up tank equipped with a baghouse, and twenty-two (22) product storage tanks. Raw material and products are transferred using a closed system. VOC and HAP emissions are controlled by one (1) 95% efficient, catalytic oxidizer, which exhausts at stack S-1. The maximum throughput is 78.84 million pounds of product per year. The facility was initially constructed in 1986, with a polymerization vessel, feed tank, and blending tank added in 1989 and an additional blending tank (identified as BTtk-14) added in 2001.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-6.1]

D.1.1 Hazardous Air Pollutants (HAPs) [326 IAC 2-6.1]

The potential to emit hazardous air pollutants (HAPs) from the latex emulsion manufacturing facility is less than ten (10) tons per year for any single HAP and less than twenty-five (25) tons per year for any combination of HAPs. Any change or modification which increases the potential emissions to greater than ten (10) tons per year for any single HAP or greater than twenty-five (25) tons per year for any combination of HAPs must receive prior approval from IDEM, OAQ.

D.1.2 Volatile Organic Compounds (VOCs) [326 IAC 8-1-6]

Pursuant to CP (12)-1621, issued on September 24, 1986, the following Best Available Control Technology shall be used to control VOC emissions from the acrylic and acrylic-styrene polymer manufacturing source:

(a) Emissions of VOCs from the following units shall be vented to the catalytic oxidizer:

(1) Feed tank vents;

(2) Polymerization vessel condenser vents;

(3) Blending tank vents; and

(4) Product finishing tanks.

(b) The monomer and solvent storage tank conservation vents (pressure side) shall be piped to the catalytic oxidizer.

D.1.3 Volatile Organic Compounds (VOCs) [326 IAC 8-1-6]

Pursuant to CP (12)-1621, issued on September 24, 1986, VOC input usage shall be limited such that VOC emissions from the catalytic oxidizer shall be limited to 4.4 tons per twelve (12) consecutive month period. Compliance with this emission limit shall be calculated as follows:

$$\text{VOC Emissions (tons / year)} = \text{VOC Input (tons / year)} \times \left[\frac{100 - \text{Control Efficiency (\%)}}{100}\right]$$

D.1.4 Particulate [326 IAC 6-3-2]

Pursuant to 326 IAC 3-2 (Process Operations), the allowable PM emission rate from the zinc make-up tank when transferring dry materials to the tank shall not exceed 3.1 pound per hour when operating at a process weight rate of 1,300 pounds per hour.

The pounds per hour limitation was calculated using the following equation:

Interpolation of the data for the process weight rate in excess of sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour; and
P = process weight rate in tons per hour

D.1.5 Preventive Maintenance Plan

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for this facility and any control devices.

Compliance Determination Requirements

D.1.6 Particulate

To comply with Condition D.1.4, the baghouse for PM control shall be in operation and control emissions from the zinc make-up tank at all times solids are transferred to the tank.

D.1.7 Volatile Organic Compounds (VOCs) [326 IAC 8-1-6]

(a) The catalytic oxidizer shall operate with an overall efficiency of not less than 95% and shall be in operation at all times the emulsion manufacturing process is in operation. The catalytic oxidizers shall not be required to be in operation when all chemical reactions, and materials charging and blending operations are complete, when no unreacted monomers, solvents, and other organics are present in the system, and when no activities other than finished product storage are taking place.

(b) From the date of issuance of this permit until the approved stack test results are available, the Permittee shall operate the catalytic oxidizer at or above the hourly average temperature or duct pressure 750EF.

(c) The Permittee shall determine temperature and fan amperage from the most recent valid stack test that demonstrates compliance with Condition D.1.1 and D.1.3, as approved by IDEM.

(d) From the date the approved stack test results are available, the Permittee shall operate the catalytic oxidizer at or above the hourly average temperature and fan amperage as observed during the compliant stack test during operation.

D.1.8 Testing Requirements [326 IAC 2-1.1-11]

(a) In order to demonstrate compliance with Condition D.1.1 and D.1.3, within three hundred sixty-five (365) days after issuance of this permit, the Permittee shall perform VOC and HAP testing for the worst case product utilizing methods as approved by the Commissioner. The VOC and HAP tests shall be performed prior to the catalytic oxidizer.

(b) If the VOC and/or HAP usage is increased or if the temperature falls below the 750°F required minimum temperature it will be considered a violation unless the Permittee performs VOC testing utilizing methods as approved by the Commissioner to ensure compliance with the 95% overall control efficiency.

Compliance Monitoring Requirements [326 IAC 2-5.1-3(e)(2)] [326 IAC 2-6.1-5(a)(2)]

D.1.9 Monitoring

(a) A continuous monitoring system shall be calibrated, maintained, and operated on the catalytic oxidizer for measuring operating temperature. The output of this system shall be recorded, and the temperature shall be at or above the hourly average temperature used to demonstrate compliance during the most recent compliance stack test. If the continuous monitoring system is not in operation, the temperature shall be recorded manually once every 15 minute period. When for any one hour, the hourly average temperature falls below the temperature established during the most recent compliance stack test, the Permittee shall take reasonable response steps in accordance with Section C - Compliance Response Plan - Preparation and Implementation. A reading that is below the established temperature is not a deviation from the permit. Failure to take response steps in accordance with Section C - Compliance Plan - Preparation and Implementation shall be considered a violation of this permit.

(b) The duct pressure or fan amperage shall be observed at least once per week when the catalytic oxidizer is in operation. When for any one reading, the pressure or amperage is outside the normal range established in the most recent compliant stack test, the Permittee shall take reasonable response steps in accordance with Section C - Compliance Response Plan Preparation and Implementation. A reading that is outside the above mentioned range is not a deviation from the permit. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation and Implementation, shall be considered a violation of this permit.

D.1.10 Catalyst Replacement

The catalyst shall be replaced a minimum of every twenty-four (24) months provided that the catalytic oxidizer is achieving the required overall control efficiency. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

Record Keeping and Reporting Requirements [326 IAC 2-5.1-3(e)(2)] [326 IAC 2-6.1-5(a)(2)]

D.1.11 Record Keeping Requirements

(a) To document compliance with Condition D.1.1, D.1.3, and D.1.9, the Permittee shall maintain records in accordance with (1) through (2) below. Records maintained for (1) through (3) shall be taken monthly and shall be complete and sufficient to establish compliance with the VOC and HAP emission limits established in Conditions D1.1, D.1.3, and D.1.9.

(1) The weight of VOC and HAP emitted for each compliance period; and

(2) Temperature records for the catalytic oxidizer.

(3) Weekly records of the duct pressure or fan amperage.

(b) To document compliance with Condition D.1.10, the Permittee shall maintain records of the catalyst replacement.

(c) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

SECTION D.2 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-6.1]:

(b) Two (2) natural gas-fired boilers, constructed in June 1986, each having a maximum heat input capacity of five (5) million British thermal units per hour. Both boilers use #2 fuel oil as an alternative fuel. The boilers are identified as SEU-2 and SEU-3. Boiler SEU-2 exhausts to stack S-14 and boiler SEU-3 exhausts to stack S-15. The boilers are an insignificant source when burning natural gas.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-6.1]

D.2.1 Particulate Matter Limitation (PM) [326 IAC 6-2-4]

Pursuant to 326 IAC 6-2-4 (Particulate Emission Limitations for Sources of Indirect Heating), the PM emissions from the two (2) five (5) MMBtu/hour heat input boilers shall be limited to 0.6 pounds per MMBtu heat input.

This limitation is based on the following equation:

$$P_t = \frac{1.09}{Q^{0.26}}$$

where P_t = pounds of particulate matter emitted per million Btu (lb/MMBtu) heat input; and ;
Q = total source maximum operating capacity rating in million Btu per hour (MMBtu/hr) heat input. (The maximum operating capacity rating for this source is 10 MMBtu/hr).

Compliance Monitoring Requirements [326 IAC 2-5.1-3(e)(2)] [326 IAC 2-6.1-5(a)(2)]

D.2.2 Visible Emissions Notations

(a) Visible emission notations of the boiler stack exhausts (S-14 and S-15) shall be performed once per shift during normal daylight operations when combusting fuel oil. A trained employee shall record whether emissions are normal or abnormal.

(b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.

(c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.

(d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

(e) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation and Implementation, shall be considered a violation of this permit.

Record Keeping and Reporting Requirements [326 IAC 2-5.1-3(e)(2)] [326 IAC 2-6.1-5(a)(2)]

D.2.3 Record Keeping Requirements

To document compliance with Condition D.2.2, the Permittee shall maintain records of visible emissions notations of the boiler stack exhausts (S-14 and S-15) while combusting fuel oil.

D.2.4 Reporting Requirements

The natural gas fired boiler certification shall be submitted semi-annually to the address listed in Section C - General Reporting Requirements, using the reporting form located at the end of this permit, or equivalent, within thirty (30) days after the end of the period being reported. The report submitted by the Permittee does require the certification by the “authorized individual” as defined by 326 IAC 2-1.1-1(1).

SECTION D.3 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-6.1]:

(c) The source has the following fourteen (14) above-ground, fixed-roof dome storage tanks:

(1) Storage tank TK-101, constructed in November 1986, having a capacity of 5,330 gallons and used to store ethyl acrylate;

(2) Storage tank TK-102, constructed in November 1986, having a capacity of 5,630 gallons and used to store acrylonitrile;

(3) Storage tank TK-103, constructed in November 1986, having a capacity of 5,330 gallons and used to store isobutylacrylate;

(4) Storage tank TK-105, constructed in November 1986, having a capacity of 8,515 gallons and used to store n-butyl acrylate;

(5) Storage tank TK-106, constructed in November 1986, having a capacity of 8,210 gallons and used to store n-butyl methacrylate;

(6) Storage tank TK-107, constructed in November 1986, having a capacity of 8,210 gallons and used to store 2-ethylhexyl acrylate;

(7) Storage tank TK-108, constructed in November 1986, having a capacity of 8,210 gallons and used to store methyl methacrylate;

(8) Storage tank TK-109, constructed in November 1986, having a capacity of 8,520 gallons and used to store styrene;

(9) Storage tank TK-110, constructed in November 1986, having a capacity of 8,210 gallons and used to store styrene;

(10) Storage tank TK-111, constructed in November 1986, having a capacity of 8,520 gallons and used to store glycol ethers;

(11) Storage tank TK-112, constructed in November 1986, having a capacity of 8,210 gallons and used to store a hydrocarbon blend;

(12) Storage tank TK-125, constructed in April 1987, having a capacity of 6,310 gallons and used to store acrylic acid;

(13) Storage tank TK-126, constructed in April 1987, having a capacity of 4,295 gallons and used to store methacrylic acid;

SECTION D.3 FACILITY OPERATION CONDITIONS (Continued)

Facility Description [326 IAC 2-6.1]:

(14) Storage tank TK-349, constructed in April 1987, having a capacity of 8,032 gallons and used to store fuel oil #2.

Tank breathing emissions of VOCs and HAPs from storage tanks TK-101, TK-102, TK-103, TK-105, TK-106, TK-107, TK-108, TK-109, TK-110, TK-111, and TK-112 are controlled by the operation of conversation vents on each storage tank and using one (1) catalytic oxidizer, which has a control efficiency of 95%. Emissions from the catalytic oxidizer are exhausted through stack S-1. VOC and HAP emissions during filling operations for tanks TK-101, TK-102, TK-103, TK-105, TK-106, TK-107, TK-108, TK-109, TK-110, TK-111, TK-112, TK-125, and TK-126 are controlled using one (1) vapor balance system, which has a control efficiency of 90 percent.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-6.1]

D.3.1 Volatile Organic Compounds (VOCs)

Pursuant to CP (12)-1621, issued on September 24, 1986, the following provisions shall be used to minimize VOC emissions from the storage tank farm:

(a) The storage tanks shall be filled in the following manner:

(1) The storage tank vapors which are displaced during filling operations are to be vented back to the tank through a closed system.

(2) Filling is to be performed in such a manner as to minimize spilling of the raw materials.

(3) Any raw materials which are spilled are to be pumped into the spill tank as soon as possible after the spill.

(b) The storage tank farm shall be equipped with a spill tank and pump for the collection of spills.

(c) Emissions from the storage tanks shall be vented to the catalytic oxidizer using a closed system.

SECTION D.4 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-6.1]:

(d) Cleaners and solvents characterized as follows:

(1) Having a vapor pressure equal to or less than 2 Kpa; 15 mmHg; or 0.3 psi measured at 38 °C (100 °F); or

(2) Having a vapor pressure equal to or less than 0.7 Kpa; 5 mmHg; or 0.1 psi measured at 20 °C (68 °F); the use of which for all cleaners and solvents combined does not exceed 145 gallons per 12 months.

(e) The following equipment related to manufacturing activities not resulting in the emission of HAPs: brazing equipment, cutting torches; soldering equipment, welding equipment.

(f) Activities associated with the treatment of wastewater streams with an oil and grease content of less than or equal to 10 % by volume.

(g) Purging of gas lines and vessels that is related to routine maintenance and repair of buildings, structures, or vehicles at the source where air emissions from those activities would not be associated with any production process.

(h) Blowdown for any of the following: sight glass; boiler; compressors; pumps; and cooling tower.

(i) Diesel generators not exceeding 1600 horsepower.

(j) Stationary fire pumps.

(k) A laboratory as defined in 326 IAC 2-7-1(20)(c).

(l) Equipment used to collect any material that might be released during a malfunction, process upset, or spill cleanup, including catch tanks, temporary liquid separators, tanks, and fluid handling equipment.

Emission Limitations and Standards [326 IAC 2-6.1]

D.4.1 Particulate [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Process Operations), the allowable particulate emissions rate from any process, not already regulated by 326 IAC 6-1 or any New Source Performance Standard, which has a maximum process weight rate less than 100 pounds per hour shall not exceed 0.551 pounds per hour. Therefore, the welding activities shall not exceed 0.551 pounds per hour, based on a maximum process weight of less than 100 pounds per hour.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
Compliance Branch

MINOR SOURCE OPERATING PERMIT
ANNUAL NOTIFICATION

This form should be used to comply with the notification requirements under 326 IAC 2-6.1-5(a)(5).

Company Name:	**Neo Resins**
Address:	**3110 West State Road 28**
City:	**Frankfort, Indiana 46041**
Phone #:	**765-654-2666**
MSOP #:	**023-15292-00023**

I hereby certify that Neo Resin is
9 still in operation.
9 no longer in operation.

I hereby certify that Neo Resin is
9 in compliance with the requirements of MSOP 023-15292-00023.
9 not in compliance with the requirements of MSOP 023-15292-00023.

Authorized Individual (typed):
Title:
Signature:
Date:

If there are any conditions or requirements for which the source is not in compliance, provide a narrative description of how the source did or will achieve compliance and the date compliance was, or will be achieved.

Noncompliance:

MALFUNCTION REPORT

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
FAX NUMBER - 317 233-5967

This form should only be used to report malfunctions applicable to Rule 326 IAC 1-6 and to qualify for the exemption under 326 IAC 1-6-4.

THIS FACILITY MEETS THE APPLICABILITY REQUIREMENTS BECAUSE IT HAS POTENTIAL TO EMIT 25 TONS/YEAR PARTICULATE MATTER ?_____, 25 TONS/YEAR SULFUR DIOXIDE ?_____, 25 TONS/YEAR NITROGEN OXIDES?_____, 25 TONS/YEAR VOC ?_____, 25 TONS/YEAR HYDROGEN SULFIDE ?_____, 25 TONS/YEAR TOTAL REDUCED SULFUR ?_____, 25 TONS/YEAR REDUCED SULFUR COMPOUNDS ?_____, 25 TONS/YEAR FLUORIDES ?_____, 100TONS/YEAR CARBON MONOXIDE ?_____, 10 TONS/YEAR ANY SINGLE HAZARDOUS AIR POLLUTANT ?_____, 25 TONS/YEAR ANY COMBINATION HAZARDOUS AIR POLLUTANT ?_____, 1 TON/YEAR LEAD OR LEAD COMPOUNDS MEASURED AS ELEMENTAL LEAD ?_____, OR IS A SOURCE LISTED UNDER 326 IAC 2-5.1-3(2) ?_____. EMISSIONS FROM MALFUNCTIONING CONTROL EQUIPMENT OR PROCESS EQUIPMENT CAUSED EMISSIONS IN EXCESS OF APPLICABLE LIMITATION _____.

THIS MALFUNCTION RESULTED IN A VIOLATION OF: 326 IAC _____ OR, PERMIT CONDITION # _____ AND/OR PERMIT LIMIT OF _____

THIS INCIDENT MEETS THE DEFINITION OF 'MALFUNCTION' AS LISTED ON REVERSE SIDE ? Y N

THIS MALFUNCTION IS OR WILL BE LONGER THAN THE ONE (1) HOUR REPORTING REQUIREMENT ? Y N

COMPANY:_____PHONE NO. ( )_____
LOCATION: (CITY AND COUNTY)_____
PERMIT NO. _____ AFS PLANT ID: _____ AFS POINT ID: _____ INSP:_____
CONTROL/PROCESS DEVICE WHICH MALFUNCTIONED AND REASON:_____
_____

DATE/TIME MALFUNCTION STARTED: _____/_____/ 20____ _____ AM / PM

ESTIMATED HOURS OF OPERATION WITH MALFUNCTION CONDITION: _____

DATE/TIME CONTROL EQUIPMENT BACK-IN SERVICE_____/_____/ 20____ _____ AM/PM

TYPE OF POLLUTANTS EMITTED: TSP, PM-10, SO2, VOC, OTHER:_____

ESTIMATED AMOUNT OF POLLUTANT EMITTED DURING MALFUNCTION: _____

_____

MEASURES TAKEN TO MINIMIZE EMISSIONS:_____

_____

REASONS WHY FACILITY CANNOT BE SHUTDOWN DURING REPAIRS:

CONTINUED OPERATION REQUIRED TO PROVIDE ESSENTIAL* SERVICES:_____
CONTINUED OPERATION NECESSARY TO PREVENT INJURY TO PERSONS:_____
CONTINUED OPERATION NECESSARY TO PREVENT SEVERE DAMAGE TO EQUIPMENT:_____
INTERIM CONTROL MEASURES: (IF APPLICABLE)_____
_____
_____

MALFUNCTION REPORTED BY:_____TITLE:_____

(SIGNATURE IF FAXED)

MALFUNCTION RECORDED BY:_____DATE:_____TIME:_____

*SEE PAGE 2

Please note - This form should only be used to report malfunctions applicable to Rule 326 IAC 1-6 and to qualify for the exemption under 326 IAC 1-6-4.

326 IAC 1-6-1 Applicability of rule

Sec. 1. This rule applies to the owner or operator of any facility required to obtain a permit under 326 IAC 2-5.1 or 326 IAC 2-6.1.

326 IAC 1-2-39 "Malfunction" definition

Sec. 39. Any sudden, unavoidable failure of any air pollution control equipment, process, or combustion or process equipment to operate in a normal and usual manner.

***Essential services** are interpreted to mean those operations, such as, the providing of electricity by power plants. Continued operation solely for the economic benefit of the owner or operator shall not be sufficient reason why a facility cannot be shutdown during a control equipment shutdown.

If this item is checked on the front, please explain rationale:

_____

_____

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION

MINOR SOURCE OPERATING PERMIT (MSOP)
SEMI-ANNUAL NATURAL GAS FIRED BOILER CERTIFICATION

Source Name: Neo Resins
Source Address: 3110 West State Road 28, Frankfort, Indiana 46041
Mailing Address: 3110 West State Road 28, Frankfort, Indiana 46041
FESOP No.: F 023-15292-00023

This certification shall be included when submitting monitoring, testing reports/results or other documents as required by this permit.

Report period
Beginning: _____
Ending: _____

Boiler Affected	Alternate Fuel	Days burning alternate fuel From	To

(can omit identification of boiler affected if only one gas boiler at this plant)

I certify that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

Signature:

Printed Name:

Title/Position:

Date:

Attach a signed certification to complete this report.

January 30, 2003
Indiana Department of Environmental Management
Office of Air Quality

Technical Support Document (TSD) for a Minor Source Operating Permit (MSOP)

Source Background and Description

Source Name:	Neo Resins
Source Location:	3110 West State Road 28, Frankfort, Indiana 46041
County:	Clinton
SIC Code:	2821
Operation Permit No.:	023-15292-00023
Permit Reviewer:	ERG/ARB

The Office of Air Quality (OAQ) has reviewed a MSOP application from Neo Resins relating to the operation of an acrylic latex emulsions manufacturing plant.

History

This source was issued a FESOP (No. 023-12762-00023) on May 1, 2001, which limited the emissions of hazardous air pollutants (HAPs) from this source to less than 10 tons per year of a single HAP and less than 25 tons per year of combined HAPs. Neo Resins believes that the method used to estimate emissions of HAPs for the FESOP over estimates HAP emissions. In the application for this MSOP, the source presented a new method for estimating HAP emissions. The HAP emission estimate for the FESOP was based on VOC stack test results and an estimate of the percent of VOCs that are HAPs. The new method is a theoretical one using Raoult's Law of partial pressures and the Ideal Gas Law.

Based on the source's new calculations, the source requested IDEM, OAQ issue a Minor Source Operating Permit for their Frankfort plant and revoke the Federally Enforceable State Operating Permit. Since the HAP emissions were not directly measured during the 1992 stack tests and the theoretical calculations provided by Neo Resins indicate that the total combined HAP emissions from the source may be less than 10 tons per year, IDEM proposes to issue a Minor Source Operating Permit as requested by Neo Resins. In order to ensure that the theoretical calculations accurately reflect the potential HAP emissions from this source, IDEM has included a provision in this proposed MSOP for stack tests. The tests will be performed during the manufacture of the worst case product and will measure the emissions of each hazardous air pollutant used in the manufacture of this product.

Permitted Emission Units and Pollution Control Equipment

The source consists of the following permitted emission units and pollution control devices:

(a) One (1) batch acrylic latex emulsion manufacturing facility consisting of three (3) feed tanks, two (2) closed polymerization vessels, four (4) blending tanks, one (1) coalescing make-up tank, one (1) zinc make-up tank equipped with a baghouse, and twenty-two (22) product storage tanks. Raw material and products are transferred using a closed system. VOC and HAP emissions are controlled by one (1) 95% efficient, catalytic oxidizer, which exhausts at stack S-1. The maximum throughput is 78.84 million pounds of product per year. The facility was initially constructed in 1986, with a polymerization vessel, feed tank, and blending tank added in 1989, and an additional blending tank (identified as BTk-14) added in 2001.

(b) Two (2) natural gas-fired boilers, constructed in June 1986, each having a maximum heat input capacity of five (5) million British thermal units per hour. Both boilers use #2 fuel oil as an alternative fuel. The boilers are identified as SEU-2 and SEU-3. Boiler SEU-2 exhausts to stack S-14 and boiler SEU-3 exhausts to stack S-15. The boilers are an insignificant source when burning natural gas.

(c) The source has the following fourteen (14) above-ground, fixed-roof dome storage tanks:

(1) Storage tank TK-101, constructed in November 1986, having a capacity of 5,330 gallons and used to store ethyl acrylate;

(2) Storage tank TK-102, constructed in November 1986, having a capacity of 5,630 gallons and used to store acrylonitrile;

(3) Storage tank TK-103, constructed in November 1986, having a capacity of 5,330 gallons and used to store isobutylacrylate;

(4) Storage tank TK-105, constructed in November 1986, having a capacity of 8,515 gallons and used to store n-butyl acrylate;

(5) Storage tank TK-106, constructed in November 1986, having a capacity of 8,210 gallons and used to store n-butyl methacrylate;

(6) Storage tank TK-107, constructed in November 1986, having a capacity of 8,210 gallons and used to store 2-ethylhexyl acrylate;

(7) Storage tank TK-108, constructed in November 1986, having a capacity of 8,210 gallons and used to store methyl methacrylate;

(8) Storage tank TK-109, constructed in November 1986, having a capacity of 8,520 gallons and used to store styrene;

(9) Storage tank TK-110, constructed in November 1986, having a capacity of 8,210 gallons and used to store styrene;

(10) Storage tank TK-111, constructed in November 1986, having a capacity of 8,520 gallons and used to store glycol ethers;

(11) Storage tank TK-112, constructed in November 1986, having a capacity of 8,210 gallons and used to store a hydrocarbon blend;

(12) Storage tank TK-125, constructed in April 1987, having a capacity of 6,310 gallons and used to store acrylic acid;

(13) Storage tank TK-126, constructed in April 1987, having a capacity of 4,295 gallons and used to store methacrylic acid;

(14) Storage tank TK-349, constructed in April 1987, having a capacity of 8,032 gallons and used to store fuel oil #2.

Tank breathing emissions of VOCs and HAPS from storage tanks TK-101, TK-102, TK-103, TK-105, TK-106, TK-107, TK-108, TK-109, TK-110, TK-111, and TK-112 are controlled by the operation of conservation vents on each storage tank and using one (1) catalytic oxidizer, which has a control efficiency of 95%. Emissions from the catalytic oxidizer are exhausted through stack S-1. VOC and HAP emissions during filling operations for tanks TK-101, TK-102, TK-103, TK-105, TK-106, TK-107, TK-108, TK-109, TK-110, TK-111, TK-112, TK-125, and TK-126 are controlled using one (1) vapor balance system, which has a control efficiency of 90 percent.

(d) Cleaners and solvents characterized as follows:

(1) Having a vapor pressure equal to or less than 2 Kpa; 15 mmHg; or 0.3 psi measured at 38 ^{o}C (100 ^{o}F); or

(2) Having a vapor pressure equal to or less than 0.7 Kpa; 5 mmHg; or 0.1 psi measured at 20 ^{o}C (68 ^{o}F); the use of which for all cleaners and solvents combined does not exceed 145 gallons per 12 months.

(e) The following equipment related to manufacturing activities not resulting in the emission of HAPS: brazing equipment, cutting torches; soldering equipment, welding equipment.

(f) Activities associated with the treatment of wastewater streams with an oil and grease content of less than or equal to 10 % by volume.

(g) Purging of gas lines and vessels that is related to routine maintenance and repair of buildings, structures, or vehicles at the source where air emissions from those activities would not be associated with any production process.

(h) Blowdown for any of the following: sight glass; boiler; compressors; pumps; and cooling tower.

(i) Diesel generators not exceeding 1600 horsepower.

(j) Stationary fire pumps.

(k) A laboratory as defined in 326 IAC 2-7-1(20)(c).

(l) Equipment used to collect any material that might be released during a malfunction, process upset, or spill cleanup, including catch tanks, temporary liquid separators, tanks, and fluid handling equipment.

Unpermitted Emission Units and Pollution Control Equipment

There are no unpermitted facilities operating at this source during this review process.

Existing Approvals

The source has been operating under previous approvals including, but not limited to, the following:

(a) CP PC(12) 1621, issued on September 24, 1986;

(b) OP 12-07-91-0137, issued on September 9, 1987;

(c) Amendment to OP 12-07-91-0137, issued on May 31, 1989;

(d) Registration, issued on June 1, 1989;

(e) Modification to OP 12-07-91-0137, issued on July 9, 1991;

(f) Exemption, issued on February 22, 1991;

(g) Notice-only-change (023-11123-00023), issued November 1999;

(h) Exemption 023-3193-00023, issued on September 16, 1993; and

(i) Exemption 023-12720-00023, issued on March 2, 2001.

(j) FESOP 023-12762-00023; issued on May 1, 2001.

All conditions from the previous approvals were incorporated into this MSOP except the following:

FESOP 023-12762-00023, issued on May 1, 2001
Condition D.1.1: Emissions of hazardous air pollutants from the latex emulsion manufacturing facility shall be limited to less than nine (9) tons of a single HAP and less than twenty-four (24) tons of any combination of HAPS per twelve (12) consecutive month period. Compliance with this limit makes 326 IAC 2-7 not applicable.

Reason not incorporated: The source demonstrated using theoretical calculations that the potential to emit hazardous air pollutants from this latex emulsion manufacturing plant is less than 10 tons per year for a single HAP and less than 25 tons per year for combined HAPS. Hence, this condition is no longer required.

Enforcement Issue

There are no enforcement actions pending.

Recommendation

The staff recommends to the Commissioner that the MSOP be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An MSOP application for the purposes of this review was received on February 11, 2002. Additional information was received on April 3, 2002.

Emission Calculations

The calculations submitted by the applicant have been verified and found to be accurate and correct. These calculations are provided in Appendix A of this document (pages 1 through 15).

Potential To Emit

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as "the maximum capacity of a stationary source to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA."

This table reflects the PTE before controls. The PTE is the maximum uncontrolled emission rates and assume the maximum production rate for two source producing a product with the worse case VOC and HAP emissions. The source controls VOC and HAP emissions using a catalytic oxidizer.

Pollutant	Potential To Emit (tons/year)
PM	6.1
PM-10	3.3
SO_2	22.2
VOC	50.4
CO	3.7
NO_x	6.2

Note: For the purpose of determining Title V applicability for particulates, PM-10, not PM, is the regulated pollutant in consideration.

HAPs	Potential To Emit (tons/year)
HAP 2	5.09
Other HAPS	0.67
TOTAL	5.76

(a) The potential to emit (as defined in 326 IAC 2-7-1(29)) of pollutants are less than 100 tons per year. Therefore, the source is not subject to the provisions of 326 IAC 2-7.

(b) The potential to emit (as defined in 326 IAC 2-7-1(29)0 of any single HAP is less than ten (10) tons per year and the potential to emit (as defined in 326 IAC 2-7-1(29)) of a combination of HAPS is less than twenty-five (25) tons per year, therefore the source is not subject to the provisions of 326 IAC 2-7.

County Attainment Status

The source is located in Clinton County.

Pollutant	Status
PM-10	attainment
SO_2	attainment
NO_2	attainment
Ozone	attainment
CO	attainment
Lead	attainment

(a) Volatile organic compounds (VOC) are precursors for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone standards. Clinton County has been designated as attainment or unclassifiable for ozone.

Therefore, VOC emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.

(b) Clinton County has been classified as attainment or unclassified for all other criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.

Source Status

Existing Source PSD, Part 70 or FESOP Definition (emissions after controls, based on 8,760 hours of operation per year at rated capacity and/or as otherwise limited):

Pollutant	Emissions (ton/yr)
PM	1.2
PM10	0.84
SO_2	22.2
VOC	2.52
CO	3.7
NO_x	6.2
Total HAPS	0.29

(a) This existing source is not a major stationary source because even though it is one of the 28 listed source categories, it does not emit 100 tons per year or greater of any regulated pollutants.

(b) These emissions were based on emission calculations submitted by the source.

Part 70 Permit Determination

326 IAC 2-7 (Part 70 Permit Program)

This existing source is not subject to the Part 70 Permit requirements because the potential to emit (PTE) of:

(a) each criteria pollutant is less than 100 tons per year,

(b) a single hazardous air pollutant (HAP) is less than 10 tons per year, and

(c) any combination of HAPS is less than 25 tons/year.

This status is based on emission calculations provided by the source.

Federal Rule Applicability

(a) The emulsion manufacturing facility (SEU-1) is not subject to the requirements of the New Source Performance Standard 40 CFR 60, Subpart DDD - Polymers and Resins (326 IAC 12) because this facility manufactures polystyrene in a batch process. Subpart DDD applies only to polystyrene manufacturing processes that use a continuous process.

(b) The storage tanks used for raw material and fuel oil storage are not subject to the requirements of the New Source Performance Standard 40 CFR 60, Subpart Kb -

Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for which Construction, Reconstruction, or Modification Commenced after July 23, 1984 (326 IAC 12), because the tank capacities are all less than 40 m^3 (10,500 gallons).

(c) The boilers are not subject to the requirements of the New Source Performance Standard 40 CFR 60, Subpart Dc - Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units (236 IAC 12), because the boilers each have a maximum heat input capacity of less than 10 MMBtu/hour and were constructed prior to 1989.

(d) The emulsion manufacturing facility (SEU-1) is not subject to the requirements of the National Standards for Hazardous Air Pollutants (NESHAPs), 40 CFR 63, Subpart JJJ (Group IV Polymers and Resins) because emissions from the entire source are less than 10 tons/year for any single HAP and less than 25 tons/year for any combination of HAPS.

(e) The emulsion manufacturing facility (SEU-1) is not subject to the requirements of the National Standards for Hazardous Air Pollutants (NESHAPs), 40 CFR 63, Subpart U(Group I Polymers and Resins) because emissions from the entire source are less than 10 tons/year for any single HAP and less than 25 tons/year for any combination of HAPS.

(f) The emulsion manufacturing facility (SEU-1) is not subject to the requirements of the National Standards for Hazardous Air Pollutants (NESHAPs), 40 CFR 63, Subpart W(Epoxy Resins and Non-Nylon Polymides) because emissions from the entire source are less than 10 tons/year for any single HAP and less than 25 tons/year for any combination of HAPs.

State Rule Applicability - Entire Source

326 IAC 2-2 (Prevention of Significant Deterioration)

Although this chemical manufacturing plant is one of the twenty-eight (28) listed sources, the potential to emit for all regulated pollutants is less than 100 tons per year. This sources is, therefore, a minor source under 326 IAC 2-2, Prevention of Significant Deterioration.

326 IAC 2-6 (Emission Reporting)

This source is located in Clinton County and the potential to emit VOC, CO, SO_2, PM-10, and NO_X are less than one hundred (100) tons per year. Therefore, 326 IAC 2-6 does not apply.

326 IAC 2-4.1 (New Source Toxics Control)

This source is not subject to the requirements of 326 IAC 2-4.1 because the source was constructed prior to the July 27, 1997 applicability date.

326 IAC 5-1 (Visible Opacity Limitations)

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

(a) Opacity shall not exceed an average of forty percent (40%) any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

(b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

State Rule Applicability - Individual Facilities

326 IAC 6-2-4 (Particulate Matter Emissions Limitations for Sources of Indirect Heating).

Pursuant to 326 IAC 6-2-4 (Particulate Matter Emission Limitations for Sources of Indirect Heating), the PM emissions from the two (2) five (5) MMBtu/hour heat input boilers shall be limited to 0.6 pounds per MMBtu heat input.

This limitation is based on the following equation:

$$P_t = \frac{1.09}{Q^{0.26}} = \frac{1.09}{(10)^{0.26}} = 0.6$$

where P_t = pounds of particulate matter emitted per million Btu (lb/MMBtu) heat input; and ;
Q = total source maximum operating capacity rating in million Btu per hour (MMBtu/hr) heat input. The maximum operating capacity rating for this source is 10 MMBtu/hr.

For sources with Q less than 10 MMBtu per hour, the P_t shall not exceed 0.6 pounds per MMBtu heat input. For sources with Q equal to or greater than 10 MMBtu per hour and less than 10,000 MMBtu per hour, P_t shall be determined using the above equation. Since Q for this source equals 10 MMBtu per hour, the P_t was determined using the equation.

326 IAC 8-4 (Petroleum Sources)

326 IAC 8-4 (Petroleum Sources) is not applicable to this source because (1) the source is not located in Clark, Elkhart, Floyd, Hendricks, Lake, Marion, Porter, St. Joseph, Boone, Dearborn, Hamilton, Hancock, Harrison, Johnson, Morgan, Shelby, or Vanderburgh Counties; (2) the source does not operate a petroleum refinery, a bulk gasoline terminal, a bulk gasoline plant, or transport or dispense motor vehicle fuel; and (3) the source does not have a petroleum liquid storage vessel with a capacity of greater than 39,000 gallons.

326 IAC 6-3-2 (Particulate Emission Limitations)

When transferring dry materials to the zinc make-up tank, the particulate from the tank shall be limited to 3.1 pounds per hour when operating at a maximum capacity of 1,300 pounds of solids per hour:

This limit was calculated using the following equation:

Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation:

$E = 4.10\ P^{0.67}$ where E = rate of emission in pounds per hour and
P = process weight rate in tons per hour

The baghouse shall be in operation at all times the zinc make-up tank is used to mix dry materials, in order to comply with this limit.

326 IAC 8-1-6 (BACT)

Pursuant to CP PC(12)-1621, issued on September 24, 1986, the following Best Available Control Technology shall be used to control VOC emissions from the acrylic and acrylic-styrene polymer manufacturing source:

(a) Emissions of VOCs from the following units shall be vented to the catalytic oxidizer:

(1) Feed tank vents;

(2) Polymerization vessel condenser vents;

(3) Blending tank vents; and

(4) Product finishing tanks.

(b) The monomer and solvent storage tank conservation vents (pressure side) shall be piped to the catalytic oxidizer.

Volatile Organic Compounds (VOCs)
Pursuant to CP (12)-1621, issued on September 24, 1986, VOC emissions from the catalytic oxidizer shall be limited to 4.4 tons per twelve (12) consecutive month period. The catalytic oxidizer shall be operated at all times the latex emulsion manufacturing facility (SEU-1) is operated.

(c) Pursuant to CP (12)-1621, issued on September 24, 1986, the following provisions shall be used to minimize VOC emissions from the storage tank farm:

(1) The storage tanks shall be filled in the following manner:

(A) The storage tank vapors which are displaced during filling operations are to be vented back to the tank through a closed system.

(B) Filling is to be performed in such a manner as to minimize spilling of the raw materials.

(C) Any raw materials which are spilled are to be pumped into the spill tank as soon as possible after the spill.

(d) The storage tank farm shall be equipped with a spill tank and pump for the collection of spills.

(e) Emissions from the storage tanks shall be vented to the catalytic oxidizer using a closed system.

326 IAC 7-1.1-1 (Sulfur Dioxide Emission Limitations)

326 IAC 7-1.1-1 (Sulfur Dioxide Emission Limitations) does not apply to the two (2) five (5) MM Btu/hr furnaces because the potential to emit $S0_2$ for each boiler is below the twenty-five (25) tons per year applicability threshold.

326 IAC 6-3-2 (Particulate Emission Limitations)

This allowable particulate emission rate from any process that has a process weight rate less than 100 pounds per hour shall not exceed 0.551 pound per hour. Therefore, the welding activities at this source are limited to 0.551 pounds of particulate per hour.

Testing Requirements

To verify that the potential HAP emissions from this facility are less than the major source thresholds, this proposed permit includes provisions for stack testing. The stack tests will be performed within 365 days of issuance of the MSOP. The tests will measure the HAPS emitted during the manufacture of the worst case product (referred to as Product D in the source's MSOP application) and will be conducted prior to the catalytic oxidizer. The source will test for every hazardous air pollutant used in the manufacture of the worst case product.

Compliance Requirements

Permits issued under 326 IAC 2-8 are required to ensure that sources can demonstrate compliance with applicable state and federal rules on a more or less continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a more or less continuous demonstration. When this occurs IDEM, OAQ, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-8-4. As a result, compliance requirements are divided into two sections: Compliance Determination Requirements and Compliance Monitoring Requirements.

Compliance Determination Requirements in Section D of the permit are those conditions that are found more or less directly within state and federal rules and the violation of which serves as grounds for enforcement action. If these conditions are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also Section D of the permit. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source's failure to take the appropriate corrective actions within a specific time period.

The compliance monitoring requirements applicable to this source are as follows:

(a) The emulsion manufacturing facility (SEU-1) has applicable compliance monitoring conditions as specified below:

(1) The temperature of the catalytic oxidizer will be monitored continuously to ensure the temperature is maintained above 750^{o}F.

(2) Eight-hour average temperatures will be made available to IDEM upon request and one-hour temperature records will be made available within five business days from request.

(3) The temperature will be reported based on an eight-hour average.

(4) The catalytic oxidizer shall operate with a five (5) degree buffer such that if the eight hour average temperature falls within five (5) degrees of the minimum required temperature, corrective action shall be performed and one-hour temperatures shall be investigated to determine if any temperature fell below the actual minimum temperature.

(5) If a one-hour temperature is less than the established minimum temperature, this will be considered noncompliance.

These monitoring conditions are necessary because the catalytic oxidizer must operate properly to ensure compliance with 326 IAC 8-1-6 (BACT).

(b) The two (2) five (5) MMBtu/hour boilers have applicable compliance monitoring conditions as specified below:

Visible emission notations of the boiler stack exhausts (S-14 and S-15) shall be performed once per shift during normal daylight operations when combusting fuel oil. A trained employee shall record whether emissions are normal or abnormal. For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time. In the case of batch or discontinuous operations, readings shall be taken during that

part of the operation that would normally be expected to cause the greatest emissions. A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

These monitoring conditions are necessary because the boilers must operate properly to ensure compliance with 326 IAC 6-2-4 (Particulate Matter Emissions Limitations for Sources of Indirect Heating).

Conclusion

The operation of this acrylic latex emulsions manufacturing plant shall be subject to the conditions of the attached proposed (MSOP No.: 023-15292-00023).

January 30, 2003

Indiana Department of Environmental Management
Office of Air Quality

Addendum to the Technical Support Document
for Minor Source Operating Permit (MSOP)

Source Background and Description

Source Name:	Neo Resins
Source Location:	3110 West State Road 28, Frankfort, Indiana 46041
County:	Clinton
SIC Code:	2821
Operation Permit No.:	023-15292-00023
Permit Reviewer:	ERG/ARB

On September 11, 2002, the Office of Air Quality (OAQ) had a notice published in the Frankfort Times, Frankfort, Indiana stating that Neo Resins had applied for a Minor Source Operating Permit (MSOP) relating to the operation of an acrylic latex emulsions manufacturing plant. The notice also stated that OAQ proposed to issue a permit for this operation and provided information on how the public could review the proposed permit and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not this permit should be issued as proposed.

Upon further review, the OAQ has decided to make the following revisions to the permit (bolded language has been added, the language with a line through it has been deleted). The Table Of Contents has been modified, if applicable, to reflect these changes.

1. A general phone number for the source has been included in Section A.1 of the permit. The following change was made to section A.1:

A.1 General Information [326 IAC 2-5.1-3(c)][326 IAC 2-6.1-4(a)]

The Permittee owns and operates a acrylic latex emulsions manufacturing plant.

Authorized individual:	Richard W. Alsterberg, U.S. Manufacturing Manager
Source Address:	3110 West State Road 28, Frankfort, Indiana 46041
Mailing Address:	3110 West State Road 28, Frankfort, Indiana 46041
General Source Phone :	**(574) 825-5867**
SIC Code:	2821
Source Location Status:	Clinton
County Status:	Attainment for all criteria pollutants
Source Status:	Federally Enforceable State Operating Permit (FESOP) Minor Source, under PSD; Minor Source, Section 112 of the Clean Air Act 1 of 28 Source Categories

2. Condition B.2 (Definitions) has been revised for clarification purposes.

B.2 Definitions

Terms in this permit shall have the definition assigned to such terms in the referenced regulation. In the absence of definitions in the referenced regulation, ~~any~~ **the** applicable definitions found in **the statutes or regulation** IC 13-11, 326 IAC 1-2, and 326 2-1.1-1 shall prevail.

3. Condition B.6 (Permit Term and Renewal) has been revised and clarified to specify when a renewal application is due.

B.6 Permit Term **and Renewal** [326 IAC 2-6.1-7**(a)**] **[326 IAC 2-1.1-9.5]**

This permit is issued for a fixed term of five (5) years from the ~~original~~ **issuance** date **of this permit**, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, ~~modifications or amendments~~ of this permit do not affect the expiration **date**.

The Permittee shall apply for an operation permit renewal at least ninety (90) days prior to the expiration date. If a timely and sufficient permit application for a renewal has been made, this permit shall not expire and all terms and conditions shall continue in effect until the renewal permit has been issued or denied.

4. The Annual Notification Condition has been moved to Section B from Section C.

~~C.17~~**B.7** Annual Notification [326 IAC 2-6.1-5(a)(5)]

(a) Annual notification shall be submitted to the Office of Air Quality stating whether or not the source is in operation and in compliance with the terms and conditions contained in this permit.

(b) Noncompliance with any condition must be specifically identified. If there are any permit conditions or requirements for which the source is not in compliance at any time during the year, the Permittee must provide a narrative description of how the source did or will achieve compliance and the date compliance was, or will be, achieved. The notification must be signed by an authorized individual.

(c) The annual notice shall cover the time period from January 1 to December 31 of the previous year, and shall be submitted in the format attached no later than March 1 of each year to:

Compliance Branch, Office of Air Quality
Indiana Department of Environmental Management
100 North Senate Avenue, P.O. Box 6015
Indianapolis, IN 46206-6015

(d) The notification shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.

5. The Preventive Maintenance Plan Condition has been moved to Section B from Section C. The language “Preventive Maintenance Plans” has been replaced with “PMPs” throughout the condition, since it is defined in the first paragraph. Additional language was added to this condition to clarify that (1) the PMP records should be maintained onsite, and (2) the source can request an extension to the preparation time allowed for the PMP.

~~C.2~~ **B.8** Preventive Maintenance Plan [326 IAC 1-6-3]

(a) If required by specific condition(s) in Section D of this permit, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMP**s**) **within sixty (60) days** after issuance of this permit, including the following information on each emissions unit:

(1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;

(2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and

(3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

If, due to circumstances beyond the Permittee's control, the PMPs cannot be prepared and maintained within the above time frame, the Permittee may extend the date an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

The PMP extension notification does not require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(b) The Permittee shall implement the ~~Preventative Maintenance Plans~~ **PMPs** as necessary to ensure that failure to implement the ~~Preventative Maintenance Plan~~ **a PMP** does not cause or contribute to a violation of any limitation on emissions or potential to emit.

(c) **A copy of the** PMPs shall be submitted to IDEM, OAQ, upon request **and within a reasonable time**, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ, may require the Permittee to revise its PMP**s** whenever lack of proper maintenance causes or contributes to any violation. **The PMP does not require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).**

(d) Records of preventive maintenance shall be retained for a period of at least five (5) years. These records shall be kept at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.

6. The Permit Revision Condition has been moved to Section B from Section C. Section (a) has been revised to clarify that the source is not liable for both a permit violation and a rule violation. The authorized individual has been replaced with "an authorized individual", because the rule does not specify that it has to be one individual; this change is made throughout the permit.

~~C.3~~**B.9** Permit Revision [326 IAC 2-5.1-3(e)(3)] [326 IAC 2-6.1-6]

(a) ~~The Permittee must comply with~~ **Permit revisions are governed by** the requirements of 326 IAC 2-6.1-6 ~~whenever the Permittee seeks to amend or modify this permit~~.

(b) Any application requesting an amendment or modification of this permit shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

Any such application shall be certified by ~~the~~ **an** "authorized individual" as defined by 326 IAC 2-1.1-1.

(c) The Permittee shall notify the OAQ within thirty (30) calendar days of implementing a notice-only change. [326 IAC 2-6.1-6(d)]

7. The Inspection and Entry and The Transfer of Ownership Conditions have both been moved from Section C to Section B.

~~C.4~~**B.10** Inspection and Entry [326 IAC 2-5.1(e)(4)(B)] [326 IAC 2-6.1-5(a)(4)]

Upon presentation of proper identification cards, credentials, and other documents as may be required by law, and subject to the Permittee's right under all applicable laws and regulations to assert that the information collected by the agency is confidential and entitled to be treated as such, the Permittee shall allow IDEM, OAQ, U.S. EPA, or an authorized representative to perform the following:

(a) Enter upon the Permittee's premises where a permitted source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;

(b) Have access to and copy, at reasonable times, any records that must be kept under this title or the conditions of this permit or any operating permit revisions;

(c) Inspect, at reasonable times, any processes, emissions units (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit or any operating permit revisions;

(d) Sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and

(e) Utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements.

~~C.5~~**B.11** Transfer of Ownership or Operation [326 IAC 2-6.1-6(d)(3)]

Pursuant to [326 IAC 2-6.1-6(d)(3)]:

(a) In the event that ownership of this source is changed, the Permittee shall notify IDEM, OAQ, Permits Branch, within thirty (30) days of the change.

(b) The written notification shall be sufficient to transfer the permit to the new owner by a notice-only change pursuant to 326 IAC 2-6.1-6(d)(3).

(c) IDEM, OAQ, shall issue a revised permit.

The notification which shall be submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1.

8. Condition B.12 (Annual Fee Payment) was added to the permit to clarify the annual fee requirement.

B.12 Annual Fee Payment [326 IAC 2-1.1-7]

(a) The Permittee shall pay annual fees to IDEM, OAQ within thirty (30) calendar days of receipt of a billing.

(b) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-4230 (ask for OAQ, I/M & Billing Section), to determine the appropriate permit fee.

9. Section C conditions have been renumbered due to adding, deleting or transferring conditions from Section C to Section B. Condition C.1 (Particulate Emission Limitations For Processes with Process Weight Rates Less Than One Hundred (100) Pounds Per Hour [40 CFR 62 Subpart P] [326 IAC 6-3-2]) has been added to specify the requirements for processes with low process weight rates. Subsequent conditions have been renumbered.

C.1 Particulate Emission Limitations For Processes with Process Weight Rates Less Than One Hundred (100) pounds per hour [40 CFR 52 Subpart P][326 IAC 6-3-2]

(a) Pursuant to 40 CFR 52 Subpart P, the allowable particulate matter emissions rate from any process not already regulated by 326 IAC 6-1 or any New Source Performance Standard, and which has a maximum process weight rate less than 100 pounds per hour shall not exceed 0.551 pounds per hour.

(b) Pursuant to 326 IAC 6-3-2(e)(2), the allowable particulate emissions rate from any process not exempt under 326 IAC 6-3-1(b) or (c) which has a maximum process weight rate less than 100 pounds per hour and the methods in 326 IAC 6-3-2(b) through (d) do not apply shall not exceed 0.551 pounds per hour.

10. Condition C.1 (PSD Minor Source Status) has been deleted from the permit. This is an informational condition that is not necessary.

~~C.1 PSD Minor Source Status [326 IAC 2-2] [40 CFR 52.21]~~

~~(a) The total source potential to emit is less than 250 tons per year. Therefore the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration) and 40 CFR 52.21 will not apply.~~

~~(b) Any change or modification which may increase potential to emit to 250 tons per year from this source, shall cause this source to be considered a major source under PSD, 326 IAC 2-2 and 40 CFR 52.21, and shall require approval from IDEM, OAQ prior to making the change.~~

~~(c) Any change or modification which may increase potential to emit to ten (10) tons per year of any single hazardous air pollutant, twenty-five (25) tons per year of any combination of hazardous air pollutants, or one hundred (100) tons per year of any other regulated~~

~~pollutant from this source, shall cause this source to be considered a major source under Part 70 Permit Program, 326 IAC 2-7, and shall require approval from IDEM, OAQ prior to making the change.~~

11. The citation for the Permit Revocation condition has been corrected.

C.~~6~~ **2** Permit Revocation ~~[326 IAC 2-1-9]~~ **[326 IAC 2-1.1-9]**

Pursuant to ~~326 IAC 2-1-9(a)~~ **326 IAC 2-1.1-9** (Revocation of Permits), this permit to operate may be revoked for any of the following causes:

...

12. The statement that "326 IAC 6-4-2(4) is not federally enforceable" has been deleted.

C.~~8~~ **4** Fugitive Dust Emissions [326 IAC 6-4]

The Permittee shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4 (Fugitive Dust Emissions). ~~326 IAC 6-4-2(4) is not federally enforceable.~~

13. The Asbestos Abatement Projects condition has been added to the permit to clarify that these provisions may apply.

C.5 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]

(a) Notification requirements apply to each owner or operator. If the combined amount of regulated asbestos containing material (RACM) to be stripped, removed or disturbed is at least 260 linear feet on pipes or 160 square feet on other facility components, or at least thirty-five (35) cubic feet on all facility components, then the notification requirements of 326 IAC 14-10-3 are mandatory. All demolition projects require notification whether or not asbestos is present.

(b) The Permittee shall ensure that a written notification is sent on a form provided by the Commissioner at least ten (10) working days before asbestos stripping or removal work or before demolition begins, per 326 IAC 14-10-3, and shall update such notice as necessary, including, but not limited to the following:

(1) When the amount of affected asbestos containing material increases or decreases by at least twenty percent (20%); or

(2) If there is a change in the following:

(A) Asbestos removal or demolition start date;

(B) Removal or demolition contractor; or

(C) Waste disposal site.

(c) The Permittee shall ensure that the notice is postmarked or delivered according to the guidelines set forth in 326 IAC 14-10-3(2).

(d) The notice to be submitted shall include the information enumerated in 326 IAC 14-10-3(3).

All required notifications shall be submitted to:

Indiana Department of Environmental Management
Asbestos Section, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

The notice shall include a signed certification from the owner or operator that the information provided in this notification is correct and that only Indiana licensed workers and project supervisors will be used to implement the asbestos removal project. The notifications do not require a certification by an "authorized individual" as defined by 326 IAC 2-1.1-1.

(e) Procedures for Asbestos Emission Control

The Permittee shall comply with the applicable emission control procedures in 326 IAC 14-10-4 and 40 CFR 61.145(c). Per 326 IAC 14-10-1, emission control requirements are applicable for any removal or disturbance of RACM greater than three (3) linear feet on pipes or three (3) square feet on any other facility components or a total of at least 0.75 cubic feet on all facility components.

(f) Indiana Accredited Asbestos Inspector

The Permittee shall comply with 326 IAC 14-10-1(a) that requires the owner or operator, prior to a renovation/demolition, to use an Indiana Accredited Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos. The requirement that the inspector be accredited, pursuant to the provisions of 40 CFR 61, Subpart M, is federally enforceable.

14. The Performance Testing condition has been revised to indicate that the test protocol and the notification of the test date do not require certification by the authorized individual.

C.~~9~~ **6** Performance Testing [326 IAC 3-6]

(a) Compliance testing on new emission units shall be conducted within 60 days after achieving maximum production rate, but no later than 180 days after initial start-up, if specified in Section D of this approval. All testing shall be performed according to the provisions of 326 IAC 3-6 (Source Sampling Procedures), except as provided elsewhere in this permit, utilizing any applicable procedures and analysis methods specified in 40 CFR 51, 40 CFR 60, 40 CFR 61, 40 CFR 63, 40 CFR 75, or other procedures approved by IDEM, OAQ.

A test protocol, except as provided elsewhere in this permit, shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

no later than thirty-five (35) days prior to the intended test date. ~~The Permittee shall submit a notice of the actual test date to the above address so that it is received at least two weeks prior to the test date.~~

(b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14 days) prior to the actual test date.

~~(b)~~ **(c) Pursuant to 326 IAC 3-6-4(b), all** ~~All~~ test reports must be received by IDEM, OAQ ~~within~~ **not later than** forty-five (45) days after the completion of the testing. An extension may

be granted by the IDEM, OAQ, if the source submits to IDEM, OAQ, a reasonable written explanation ~~within~~ **not later than** five (5) days prior to the end of the initial forty-five (45) day period.

~~The documentation submitted by the Permittee does not require certification by the "authorized individual" as defined by 326 IAC 2-1.1-1~~

15. The Compliance Requirements condition is a new condition that refers to general compliance authority in 326 IAC 2-1.1-11.

Compliance Requirements [326 IAC 2-1.1-11]

C.7 Compliance Requirements [326 IAC 2-1.1-11]

The commissioner may require stack testing, monitoring, or reporting at any time to assure compliance with all applicable requirements by issuing an order under 326 IAC 2-1.1-11. Any monitoring or testing shall be performed in accordance with 326 IAC 3 or other methods approved by the commissioner or the U.S. EPA.

16. The citations 40 CFR 60 and 40 CFR 63 have been added to the Monitoring Methods condition.

C.~~11~~ **9** Monitoring Methods [326 IAC 3] **[40 CFR 60] [40 CFR 63]**

Any monitoring or testing required by Section D of this permit shall be performed according to the provisions of 326 IAC 3, 40 CFR 60, Appendix A, **40 CFR 60, Appendix B, 40 CFR 63** , or other approved methods as specified in this permit.

17. The title of the Compliance Response Plan Condition has been revised to delete the words "Records and Reports", because this condition does not refer to records and reports.

C.~~12~~**10** Compliance Response Plan - Preparation **and** Implementation, ~~Records, and Reports [326 IAC 1-6]~~

18. Condition C.14 for Monitoring Data Availability has been deleted.

~~C.14 Monitoring Data Availability [326 IAC 2-6.1-2] [IC 13-14-1-13]~~

~~(a) With the exception of performance tests conducted in accordance with Section C - Performance Testing, all observations, sampling, maintenance procedures, and record keeping, required as a condition of this permit shall be performed at all times the equipment is operating at normal representative conditions.~~

~~(b) As an alternative to the observations, sampling, maintenance procedures, and record keeping of subsection (a) above, when the equipment listed in Section D of this permit is not operating, the Permittee shall either record the fact that the equipment is shut down or perform the observations, sampling, maintenance procedures, and record keeping that would otherwise be required by this permit.~~

~~(c) If the equipment is operating but abnormal conditions prevail, additional observations and sampling should be taken with a record made of the nature of the abnormality.~~

~~(d) If for reasons beyond its control, the operator fails to make required observations, sampling, maintenance procedures, or record keeping, reasons for this must be recorded.~~

~~(e) At its discretion, IDEM may excuse such failure providing adequate justification is documented and such failures do not exceed five percent (5%) of the operating time in any quarter.~~

~~(f) Temporary, unscheduled unavailability of staff qualified to perform the required observations, sampling, maintenance procedures, or record keeping shall be considered a valid reason for failure to perform the requirements stated in (a) above.~~

19. The General Record Keeping Requirements condition has been revised to be more consistent with the regulation and to clarify that a "reasonable time" will be given for the source to produce the records. The word "Monitoring" was removed so that the condition is generalized to all record keeping. The word "reports" was added to clarify that copies of reports must be retained. Paragraphs (b) and (c) have been deleted because they do not provide any additional information.

C.~~15~~**13** General Record Keeping Requirements [326 IAC 2-6.1-~~2~~ **5**]

(a) Records of all required ~~monitoring~~ data, **reports** and support information shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be kept at the source location for a minimum of three (3) years ~~and available upon the request of an IDEM, OAQ, representative~~. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a ~~written~~ request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.

~~(b) Records of required monitoring information shall include, where applicable:~~

~~(1) The date, place, and time of sampling or measurements;~~

~~(2) The dates analyses were performed;~~

~~(3) The company or entity performing the analyses;~~

~~(4) The analytic techniques or methods used;~~

~~(5) The results of such analyses; and~~

~~(6) The operating conditions existing at the time of sampling or measurement.~~

~~(c) Support information shall include, where applicable:~~

~~(1) Copies of all reports required by this permit;~~

~~(2) All original strip chart recordings for continuous monitoring instrumentation;~~

~~(3) All calibration and maintenance records;~~

~~(4) Records of preventive maintenance shall be sufficient to demonstrate that failure to implement the Preventive Maintenance Plan did not cause or contribute to a violation of any limitation on emissions or potential to emit. To be relied upon subsequent to any such violation, these records may include, but are not limited to: work orders, parts inventories, and operator's standard operating procedures. Records of response steps taken shall indicate whether the response steps were performed in accordance with the Compliance Response Plan required by Section~~

~~C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, of this permit, and whether a deviation from a permit condition was reported. All records shall briefly describe what maintenance and response steps were taken and indicate who performed the tasks.~~

(~~d~~ **b**) **Unless otherwise specified in this permit, all** record keeping requirements not already legally required shall be implemented when operation begins.

20. The General Reporting Requirements condition has been revised to clarify when reports are required to be submitted and that the reporting period is based on the calendar year.

C.~~16~~**14** General Reporting Requirements [326 IAC 2-1.1-11] [326 IAC 2-6.1-2] [IC 13-14-1-13]

(a) Reports required by conditions in Section D of this permit shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

(b) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.

(c) Unless otherwise specified in this permit, any reports required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. The reports do not require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(d) The first report shall cover the period commencing on the date of issuance of this permit and ending on the last day of the reporting period. **Reporting periods are based on calendar years.**

21. Condition D.1.9(a) has been revised to clarify the requirement to take reasonable response steps in accordance with the Compliance Response Plan. Condition D.1.9(b) has been updated to reflect the new name for Condition C.10 (previously listed as Condition C.12). The following changes have been made to the permit:

D.1.9 Monitoring

(a) A continuous monitoring system shall be calibrated, maintained, and operated on the catalytic oxidizer for measuring operating temperature. The output of this system shall be recorded, and the temperature shall be at or above the hourly average temperature used to demonstrate compliance during the most recent compliance stack test. If the continuous monitoring system is not in operation, the temperature shall be recorded manually once every 15 minute period. **When for any one hour, the hourly average temperature falls below the temperature established during the most recent compliance stack test, the Permittee shall take reasonable response steps in accordance with Section C - Compliance Response Plan - Preparation and Implementation. A reading that is below the established temperature is not a deviation from the permit. Failure to take response steps in accordance with Section C - Compliance Plan - Preparation and Implementation shall be considered a violation of this permit.**

(b) The duct pressure or fan amperage shall be observed at least once per week when the catalytic oxidizer is in operation. When for any one reading, the pressure or amperage is outside the normal range established in the most recent compliant stack test, the Permittee shall take reasonable response steps in accordance with Section C - Compliance Response Plan Preparation~~,~~ **and** Implementation, ~~Records, and Reports~~. A reading that is outside the above mentioned range is not a deviation from the permit. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation~~,~~ **and** Implementation, ~~Records, and Reports,~~ shall be considered a violation of this permit.

22. Condition D.2.2(e) has been updated to reflect the new name for Condition C.10 (previously listed as Condition C.12).

D.2.2 Visible Emissions Notations

. . .

(e) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C - Compliance **Response** ~~Monitoring~~ Plan - ~~Failure to Take Response Steps~~ **Preparation and Implementation**, shall be considered a violation of this permit.

. . .

Physical Data and Chemical Properties

Company Name: **Neo Resins**
Address City IN Zip: **3110 West State Road 28, Frankfort, Indiana 46041**
CP: **023-15292**
Plt ID: **023-00023**
Reviewer: **ERG/AR**
Date: **June 18, 2002**

HAP 4

molecular weight	72.1	lb per lb-mol
liquid density	8.60	lbs per gal @ 60°F
boiling point	286	°F @ 1 atm

vapor pressure, mmHg

$\ln P = A + (B/T) + (C \times \ln T) + (D \times T^E)$; P - mmHg, T - K

A	53.0992
B	-7.218E+03
C	-4.8813
D	1.006E-03
E	1

non-HAP VOC 1

molecular weight	86.1	lb per lb-mol
liquid density	8.47	lbs per gal @ 60°F
boiling point	322	°F @ 1 atm

vapor pressure, mmHg

20 C	0.80
25 C	1.00
30 C	1.80
40 C	3.50
90 C	48.1
100 C	76.5

HAP 1

molecular weight	53.6	lb per lb-mol
liquid density	6.68	lbs per gal @ 60°F
boiling point	173	°F @ 1 atm

vapor pressure, mmHg

$\ln P = A + (B/T) + (C \times \ln T) + (D \times T^E)$; P - mmHg, T - K

A	82.7112
B	-6.393E+03
C	-10.101
D	1.089E-05
E	2

Physical Data and Chemical Properties

Company Name: **Neo Resins**

Address City IN Zip: **3110 West State Road 28, Frankfort, Indiana 46041**
CP: **023-15292**
Plt ID: **023-00023**
Reviewer: **ERG/AR**
Date: **June 18, 2002**

HAP 5

molecular weight	100.1	lb per lb-mol
liquid density	7.70	lbs per gal @ 60°F
boiling point	210	°F @ 1 atm

vapor pressure, mmHg

$\ln P = A + (B/T) + (C \times \ln T) + (D \times T^E)$; P - mmHg, T - K

A	126.6672
B	-8.267E+03
C	-17.694
D	1.854E-02
E	1

HAP 2

molecular weight	100.1	lb per lb-mol
liquid density	7.84	lbs per gal @ 60°F
boiling point	214	°F @ 1 atm

vapor pressure, mmHg

$\ln P = A + (B/T) + (C \times \ln T) + (D \times T^E)$; P - mmHg, T - K

A	246.1372
B	-1.214E+04
C	-37.654
D	4.287E-02
E	1

HAP 3

molecular weight	104.2	lb per lb-mol
liquid density	7.55	lbs per gal @ 60°F
boiling point	294	°F @ 1 atm

vapor pressure, mmHg

$\ln P = A + (B/T) + (C \times \ln T) + (D \times T^E)$; P - mmHg, T - K

A	128.6272
B	-9.266E+03
C	-17.609
D	1.539E-02
E	1

Physical Data and Chemical Properties

Company Name: **Neo Resins**
Address City IN Zip: **3110 West State Road 28, Frankfort, Indiana 46041**
CP: **023-15292**
Plt ID: **023-00023**

Reviewer: **ERG/AR**
Date: **June 18, 2002**

HAP 6

molecular weight	118.17	lb per lb-mol
liquid density	7.51	lbs per gal @ 60°F
boiling point	345	°F @ 1 atm

vapor pressure, mmHg

$\ln P = A + (B/T) + (C \times \ln T) + (D \times T^E)$; P - mmHg, T - K

A	110.6072
B	-1.071E+04
C	-13.140
D	2.978E-17
E	6

non-HAP VOC 3

molecular weight	128.2	lb per lb-mol
liquid density	7.52	lbs per gal @ 60°F
boiling point	297	°F @ 1 atm

vapor pressure, mmHg

20 C	4.40
25 C	6.25
30 C	7.80
40 C	13.4
90 C	126.1
100 C	178.9

non-HAP VOC 4

molecular weight	184.2	lb per lb-mol
liquid density	7.40	lbs per gal @ 60°F
boiling point	420	°F @ 1 atm

vapor pressure, mmHg

20 C	0.41
25 C	0.50
30 C	0.62
40 C	0.80
90 C	9.30
100 C	15.5

Physical Data and Chemical Properties

Company Name: **Neo Resins**
Address City IN Zip: **3110 West State Road 28, Frankfort, Indiana 46041**
CP: **023-15292**
Plt ID: **023-00023**
Reviewer: **ERG/AR**
Date: **June 18, 2002**

non-HAP VOC 5

molecular weight	128.2	lb per lb-mol
liquid density	7.49	lbs per gal @ 60°F
boiling point	297	°F @ 1 atm
vapor pressure, mmHg		
20 C	4.40	
25 C	6.25	
30 C	7.80	
40 C	13.4	
90 C	126.1	
100 C	178.9	

non-HAP VOC 2

molecular weight	142.2	lb per lb-mol
liquid density	7.46	lbs per gal @ 60°F
boiling point	330	°F @ 1 atm
vapor pressure, mmHg		
20 C	2.00	
25 C	2.50	
30 C	3.00	
40 C	4.50	
90 C	13.8	
100 C	58.0	

non-HAP VOC 6

molecular weight	120	lb per lb-mol
liquid density	7.27	lbs per gal @ 60°F
boiling point	328	°F @ 1 atm
vapor pressure, mmHg		
20 C	1.00	
25 C	-	
30 C	-	
40 C	-	
90 C	-	
100 C	-	

DETERMINATION OF PERCENTAGE OF LIQUID PHASE CONSTITUENTS

Company Name: Neo Resins
Address City IN Zip: 3110 West State Road 28, Frankfort, Indiana 46041
CP: 023-15292
Plt ID: 023-00023
Reviewer: ERG/AR
Date: June 18, 2002

Constituent	Product D, FTK charge		Product D, FTK pre-flush		Product D, FTK post-flush		Product D, final reactor	
	lbs	wt. pct. (liq)	lbs	wt. pct. (liq)	lbs	wt. pct. (liq)	lbs	wt. pct. (liq)
resin solids								
water					200	1.32	15,030	49.04
soap							618	2.02
non-HAP VOC 1								
HAP 4								
HAP 1								
HAP 5								
non-HAP VOC 3								
non-HAP VOC 5								
non-HAP VOC 1								
HAP 2	7,500	50.0	7,500	50.0	7,500	49.34	7,500	24.47
non-HAP VOC 2								
non-HAP VOC 4	7,500	50.0	7,500	50.0	7,500	49.34	7,500	24.47
HAP 6								
non-HAP VOC 6								
Total	15,000	100	15,000	100	15,200	100	30,648	100

DETERMINATION OF MOLECULAR WEIGHT AND TOTAL PARTIAL PRESSURES

Company Name: Neo Resins
Address City IN Zip: 3110 West State Road 28, Frankfort, Indiana 46041
CP: 023-15292
Plt ID: 023-00023
Reviewer: ERG/AR
Date: June 18, 2002

FEED TANK CHARGE - PRODUCT D

Operating temperature 25 **C** 298 **K**

			Liquid phase (total liquid) - based on 100 lbs				
Chemical	**Mole. weight lb/lb-mol**	**Vapor pressure mmHg**	**conc. wt. pct.**	**mole number lb-mols**	**mole fraction mol/mol**	**Partial pressure mmHg**	**Partial MW lb/lb-mol**
HAP 2	100.1	38.2	50.0	0.50	0.65	24.76	99.4
non-HAP VOC 4	184.2	0.50	50.0	0.27	0.35	0.18	1.3
TOTALS	-	-	100	0.77	1.0		100.7

Total partial pressures (OC), mmHg **24.94**

OC vapor molecular weight, lb/lb-mol **100.7**

DETERMINATION OF MOLECULAR WEIGHT AND TOTAL PARTIAL PRESSURES

Company Name: Neo Resins
Address City IN Zip: 3110 West State Road 28, Frankfort, Indiana 46041
CP: 023-15292
Plt ID: 023-00023
Reviewer: ERG/AR
Date: June 18, 2002

FEED TANK PRE-FLUSH - PRODUCT D

Operating temperature 25 **C** 298 **K**

			Liquid phase (total liquid) - based on 100 lbs				
Chemical	**Mole. weight lb/lb-mol**	**Vapor pressure mmHg**	**conc. wt. pct.**	**mole number lb-mols**	**mole fraction mol/mol**	**Partial pressure mmHg**	**Partial MW lb/lb-mol**
HAP 2	100.1	38.2	50.0	0.50	0.65	24.76	99.4
non-HAP VOC 4	184.2	0.50	50.0	0.27	0.35	0.18	1.3
TOTALS	-	-	100	0.77	1.0		100.7

Total partial pressure , mmHg **24.94**

Total partial pressures (OC), mmHg **24.94**

OC vapor molecular weight, lb/lb-mol **100.7**

DETERMINATION OF MOLECULAR WEIGHT AND TOTAL PARTIAL PRESSURES

Company Name: Neo Resins
Address City IN Zip: 3110 West State Road 28, Frankfort, Indiana 46041
CP: 023-15292
Plt ID: 023-00023
Reviewer: ERG/AR
Date: June 18, 2002

FEED TANK POST-FLUSH - PRODUCT D

Operating temperature 25 **C** 298 **K**

			Liquid phase (total liquid) - based on 100 lbs				
Chemical	**Mole. weight lb/lb-mol**	**Vapor pressure mmHg**	**conc. wt. pct.**	**mole number lb-mols**	**mole fraction mol/mol**	**Partial pressure mmHg**	**Partial MW lb/lb-mol**
water	18	23.76	1.32	0.07	0.09	2.08	1.51
HAP 2	100.1	38.2	49.34	0.49	0.59	22.59	91.1
non-HAP VOC 4	184.2	0.50	49.34	0.27	0.32	0.16	1.2
TOTALS	-	-	100	0.83	1.0		93.8

Total partial pressure , mmHg **24.83**

Total partial pressures (OC), mmHg **22.75**

OC vapor molecular weight, lb/lb-mol **92.2**

Appendix A: Emissions Calculations

DETERMINATION OF MOLECULAR WEIGHT AND TOTAL PARTIAL PRESSURES

Company Name: Neo Resins
Address City IN Zip: 3110 West State Road 28, Frankfort, Indiana 46041
CP: 023-15292
Plt ID: 023-00023
Reviewer: ERG/AR
Date: June 18, 2002

BASE REACTOR MIXTURE - PRODUCT D

Operating temperature 25 **C** 298 **K**

			Liquid phase (total liquid) - based on 100 lbs				
Chemical	**Mole. weight lb/lb-mol**	**Vapor pressure mmHg**	**conc. wt. pct.**	**mole number lb-mols**	**mole fraction mol/mol**	**Partial pressure mmHg**	**Partial MW lb/lb-mol**
water	18	23.76	49.04	2.72	0.88	20.82	15.72
soap	289.4	0	2.02	0.007	0.002	0	0
HAP 2	100.1	38.2	24.47	0.24	0.08	3.01	12.6
non-HAP VOC 3	184.2	0.50	24.47	0.13	0.04	0.02	0.2
non-HAP VOC 1	-	-	100	3.11	1.0		28.5

Total partial pressure , mmHg **23.85**

Total partial pressures (OC), mmHg **3.03**

OC vapor molecular weight, lb/lb-mol **12.8**

DETERMINATION OF MOLECULAR WEIGHT AND TOTAL PARTIAL PRESSURES

Company Name: Neo Resins
Address City IN Zip: 3110 West State Road 28, Frankfort, Indiana 46041
CP: 023-15292
Plt ID: 023-00023
Reviewer: ERG/AR
Date: June 18, 2002

REACTOR MIXTURE - PRODUCT D

Operating temperature 30 **C** 303 **K**

			Liquid phase (total liquid) - based on 100 lbs				
Chemical	**Mole. weight lb/lb-mol**	**Vapor pressure mmHg**	**conc. wt. pct.**	**mole number lb-mols**	**mole fraction mol/mol**	**Partial pressure mmHg**	**Partial MW lb/lb-mol**
water	18	31.82	49.04	2.72	0.88	27.89	15.78
soap	289.4	0	2.02	0.007	0.002	0	0
HAP 2	100.1	49.6	24.47	0.24	0.08	3.90	12.3
non-HAP VOC 4	184.2	0.62	24.47	0.13	0.04	0.03	0.2
non-HAP VOC 1	-	-	100	3.11	1.0		28.2

Total partial pressure , mmHg **31.8**

Total partial pressures (OC), mmHg **3.93**

OC vapor molecular weight, lb/lb-mol **12.4**

DETERMINATION OF MOLECULAR WEIGHT AND TOTAL PARTIAL PRESSURES

Company Name: Neo Resins
Address City IN Zip: 3110 West State Road 28, Frankfort, Indiana 46041
CP: 023-15292
Plt ID: 023-00023
Reviewer: ERG/AR
Date: June 18, 2002

REACTOR MIXTURE - PRODUCT D

Operating temperature 90 **C** 363 **K**

			Liquid phase (total liquid) - based on 100 lbs				
Chemical	**Mole. weight lb/lb-mol**	**Vapor pressure mmHg**	**conc. wt. pct.**	**mole number lb-mols**	**mole fraction mol/mol**	**Partial pressure mmHg**	**Partial MW lb/lb-mol**
water	18	525.76	49.04	2.72	0.88	460.8	16.46
soap	289.4	0	2.02	0.007	0.002	0	0
HAP 2	100.1	543.3	24.47	0.24	0.08	42.7	8.5
non-HAP VOC 4	184.2	9.30	24.47	0.13	0.04	0.40	0.1
non-HAP VOC 1	-	-	100	3.11	1.0		25.1

Total partial pressure , mmHg **503.9**

Total partial pressures (OC), mmHg **43.1**

OC vapor molecular weight, lb/lb-mol **8.6**

Appendix A: Emissions Calculations
Company Name: **Neo Resins**
Address City IN Zip: **3110 West State Road 28, Frankfort, Indiana 46041**
CP: **023-15292**
Plt ID: **023-00023**
Reviewer: **ERG/AR**
Date: **June 18, 2002**

Feed Tank Charge
Per-Batch Emissions for Product D

atmospheric pressure (i.e., the vent is open to the oxidizer manifold). VOC and HAP loss at this step is due to the displacement of completely saturated feed tank head space vapors.

Calculate physical conditions of displaced vapors

system temperature **(T)**		**25**	C
		298	K
system pressure **(Pt)**		**760**	mmHg
chemicals charged	lbs	gal	
HAP 2	**7,500**	**957**	
non-HAP VOC 4	**7,500**	**1,014**	
rate of displacement (per batch) **(Vr)**		**1,970**	gal
		263	ft^3

Calculate gas-phase mole fraction(s) at saturation

Chemical	Partial pressure **(Pi)** mmHg	Gas-phase mole fraction **Yi**	(= Pi / Pt)
HAP 2	**24.76**	**0.033**	
non-HAP VOC 4	**0.18**	**0.0002**	

Calculate uncontrolled emissions [= (Yi x Vr x Pt x MWi) / (R x T)]; R = 998.97 mmHg-ft3/lb-mol K

Chemical	Gas-phase mole fraction **Yi**	Molecular weight **(MWi)** lb/lb-mol	Emissions lbs per batch-step
HAP 2	**0.033**	**100.1**	**2.19**
non-HAP VOC 4	**0.0002**	**184.2**	**0.03**
Total VOC emissions			**2.22**

Monomer Line Flush

Monomers and acids charging lines are flushed with water into the feed tank(s). VOC and HAP loss at this step is due to the displacement of completely saturated feed tank head space vapors.

Calculate physical conditions of displaced vapors

system temperature **(T)**		**25**	C
		298	K
system pressure **(Pt)**		**760**	mmHg
chemicals charged	lbs	gal	
water	**200**	**24**	
rate of displacement (per batch) **(Vr)**		**24**	gal
		3.2	ft^3

Appendix A: Emissions Calculations
Company Name: **Neo Resins**
Address City IN Zip: **3110 West State Road 28, Frankfort, Indiana 46041**
CP: **023-15292**
Plt ID: **023-00023**
Reviewer: **ERG/AR**
Date: **June 18, 2002**

Calculate gas-phase mole fraction(s) at saturation

Chemical	Partial pressure **(Pi)** mmHg	Gas-phase mole fraction **Yi**	(= Pi /Pt)
HAP 2	**24.76**	**0.033**	
non-HAP VOC 4	**0.18**	**0.0002**	

Calculate uncontrolled emissions [= (Yi x Vr x Pt x MWi) / (R x T)]; R = 998.97 mmHg-ft3/lb-mol K

Chemical	Gas-phase mole fraction **Yi**	Molecular weight **(MWi)** lb/lb-mol	Emissions lbs per batch-step
HAP 2	**0.033**	**100.1**	**2.7E-02**
non-HAP VOC 4	**0.0002**	**184.2**	**3.5E-04**
Total VOC emissions			**0.027**

Reactor Charge

The contents of the feed tank is charged to a reactor via pressurized nitrogen. Procedure is to charge 10 percent of the feed tank as a reaction seed and add the remainder over time. For simplification purposes, calculations assume adding the entire feed tank without reaction. The reactor is at atmospheric pressure (i.e., the vent is open to the oxidizer manifold). VOC/HAP loss at this step is due to the displacement of completely saturated reactor head space vapors. Note: The reactor will have soap and water present before charging from the feed tank. The calculations disregard the negligible effect and treat the reactor as if it were empty.

Calculate physical conditions of displaced vapors

system temperature **(T)**		**25**	C
		298	K
system pressure **(Pt)**		**760**	mmHg
chemicals charged	lbs	gal	
HAP 2	**7,500**	**957**	
non-HAP VOC 4	**7,500**	**1,014**	
water	**200**	**24**	
rate of displacement (per batch) **(Vr)**		**1,994**	gal
		267	ft^3

Calculate gas-phase mole fraction(s) at saturation

Chemical	Partial pressure **(Pi)** mmHg	Gas-phase mole fraction **Yi**	(= Pi /Pt)
HAP 2	**22.59**	**0.030**	
non-HAP VOC 4	**0.16**	**0.0002**	

Calculate uncontrolled emissions [= (Yi x Vr x Pt x MWi) / (R x T)]; R = 998.97 mmHg-ft3/lb-mol K

Chemical	Gas-phase mole fraction **Yi**	Molecular weight **(MWi)** lb/lb-mol	Emissions lbs per batch-step
HAP 2	**0.030**	**100.1**	**2.03**
non-HAP VOC 4	**0.0002**	**184.2**	**0.03**
Total VOC emissions			**2.05**

Appendix A: Emissions Calculations
Company Name: **Neo Resins**
Address City IN Zip: **3110 West State Road 28, Frankfort, Indiana 46041**
CP: **023-15292**
Plt ID: **023-00023**
Reviewer: **ERG/AR**
Date: **June 18, 2002**

Reactor Heatup

The reactor contents heat as the polymerization reactions occur from 30 C to 90 C. VOC and HAP loss at this process step is due the temperature increase causing the gases and vapors in the reactor head space to expand and be discharged. The calculations disregard the reduction in free monomer/acids due to reaction. The calculations further assume the reactor vent is open to the TO and is therefore at atmospheric pressure. VOC and HAP emissions are reduced by a chilled water-cooled riser and reflux condenser.

non-HAP VOC 2

system temperature (initial) **(T1)**	**30**	C
	303	K
system temperature (final) **(T2)**	**90**	C
	363	K
system pressure **(Pt)**	**760**	mmHg

Calculate free head space in reactor

reactor volume	**5,000**	gal
materials in reactor (including water seed)	**4,430**	gal
available head space **(V)**	**570**	gal
	76.20	ft^3

Calculate initial pressure of noncondensible gases in reactor (pP1 = total partial pressures at 30C)

Pa1 = Pt - pP1	Pt	**760**	mmHg
	pP1	**31.8**	mmHg
	Pa1	**728.2**	mmHg

Calculate final pressure of noncondensible gases in reactor (pP2 = total partial pressures at 90C)

Pa2 = Pt - pP2	Pt	**760**	mmHg
	pP2	**503.9**	mmHg
	Pa2	**256.1**	mmHg

Calculate number of moles of displaced gases during heat up

n = (V/R) x [(Pa1/T1) - (Pa2/T2)]

n	**0.130**	lb-moles of noncondensible gases

Calculate number of moles of VOC/HAP in displaced gases (pP1 and pP2 for VOC/HAP only)

ns = n x [((pP1 / Pa1) + (pP2 / Pa2)) / 2]

Chemical	pP1	pP2	ns
HAP 2	**3.90**	**42.7**	**0.011**
non-HAP VOC 4	**0.03**	**0.40**	**1.0E-04**

Appendix A: Emissions Calculations
Company Name: **Neo Resins**
Address City IN Zip: **3110 West State Road 28, Frankfort, Indiana 46041**
CP: **023-15292**
Plt ID: **023-00023**
Reviewer: **ERG/AR**
Date: **June 18, 2002**

Calculate pre-condenser VOC/HAP emissions

UER = ns x MW		Molecular weight	Emissions lbs per
Chemical	ns	lb/lb-mol	batch-step
HAP 2	**0.011**	**100.1**	**1.12**
non-HAP VOC 4	**1.0E-04**	**184.2**	**0.02**

Calculate VOC/HAP emissions following riser/reflux condenser

		Inlet gas-phase mol fraction (90C)		Outlet gas-phase mol fraction (25C)	Efficiency **(Eff)**
Chemical	pP2	Yi	pP1	Yo	pct.
HAP 2	**42.7**	**0.05622**	**3.01**	**0.003955**	**92.97**
non-HAP VOC 4	**0.40**	**0.00052**	**0.02**	**0.000028**	**94.62**

			Emissions lbs per
Chemical	UER	Eff.	batch-step
HAP 2	**1.12**	**92.97**	**0.079**
non-HAP VOC 4	**0.02**	**94.62**	**0.001**
Total VOC emissions			**0.080**

Note: Reaction assumed 100 percent complete and residual monomer/acids is negligible; therefore, post-reactor emissions from product transfer, blending, adjusting, storage and loadout are negligible.

Calculate emissions from coalecing operations - Not applicable for this product

TOTAL PER-BATCH EMISSIONS

Chemical	**Emissions lbs per batch**
HAP 2	**4.323**
non-HAP VOC 4	**0.057**
VOC	**4.380**
VOC from reactor cleanout (see separate sheet)	**0.035**
Total VOC	**4.415**